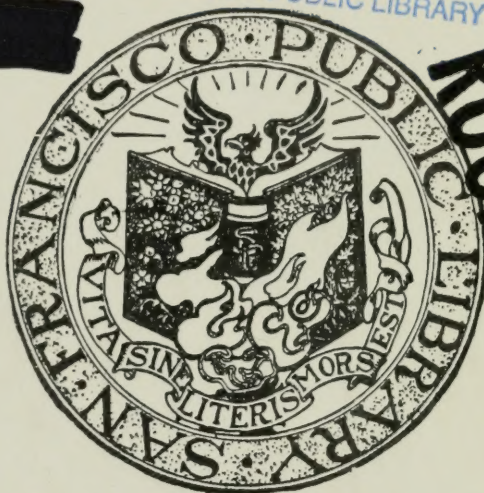


GOVERNMENT INFORMATION CENTER
SAN FRANCISCO PUBLIC LIBRARY



ROOM

Book No.

ACCESSION

328.794 C12:35⁴

46600

NOT TO BE TAKEN FROM THE LIBRARY

FORM 3427-5000-10-49


SAN FRANCISCO PUBLIC LIBRARY



3 1223 90189 2688

DOC

RTMENT



Digitized by the Internet Archive
in 2010 with funding from
San Francisco Public Library

APPENDIX TO THE JOURNALS

OF THE

SENATE AND ASSEMBLY

OF THE

THIRTY-FIFTH SESSION

OF THE

LEGISLATURE OF THE STATE OF CALIFORNIA.

VOLUME II.



SACRAMENTO:

W. W. SHANNON, : : : : SUPERINTENDENT STATE PRINTING.
1903.

*328.794 C12:35¹⁴
46600

CONTENTS.

- 1—Annual Report of the Secretary to the Board of Regents of the State University. 1901.
- 2—Biennial Report of the Trustees of the State Library. 1900-1902.
- 3—Biennial Report of the State Board of Fish Commissioners. 1901-1902.
- 4—Biennial Report of the State Commission in Lunacy. 1900-1902.
- 5—Report of Special Health Commissioners. 1901.
- 6—Biennial Report of State Board of Health. 1900-1902.
- 7—Biennial Report of State Board of Prison Directors. 1900-1902.
- 8—Biennial Report of State Board of Harbor Commissioners of Bay of San Diego. 1902.
- 9—Biennial Report of State Board of Harbor Commissioners, San Francisco. 1900-1902.
- 10—Biennial Report of State Board of Equalization. 1899-1902.
- 11—Report of State Board of Pharmacy. 1901-1902.
- 12—Report of Trustees of State Normal School at San José. 1899-1900.
- 13—Report of Trustees of State Normal School at Chico. 1902.
- 14—Report of Trustees of State Normal School at Los Angeles. 1900-1902.
- 15—Annual Report of Board of Dental Examiners. 1902.
- 16—Biennial Report of Commissioners to Manage Yosemite Valley and Mariposa Big Tree Grove. 1901-1902.
- 17—Report of State Veterinarian. 1902.
- 18—Report of State Veterinary Medical Board. 1903.
- 19—Report of Commissioner of Public Works. 1901-1902.
- 20—Report of Débris Commissioner. 1901-1902.
- 21—Biennial Report of Bureau of Labor Statistics. 1901-1902.
- 22—Report of State Dairy Bureau. 1900-1902.
- 23—Biennial Report of Department of Highways. 1900-1902.
- 24—Biennial Report of Board of Trustees of State Mining Bureau. 1901-1902.
- 25—Twenty-fifth Report of Board of Directors of the California Institution for the Education of the Deaf and the Blind. 1900-1902.

ANNUAL REPORT

OF THE

SECRETARY TO THE BOARD OF REGENTS

OF THE

UNIVERSITY OF CALIFORNIA,

FOR THE YEAR ENDING JUNE 30, 1901.



SACRAMENTO:

A. J. JOHNSTON, : : : : : SUPERINTENDENT STATE PRINTING.
1902.

TABLE OF CONTENTS.

A	PAGE.
Absence, Leaves of.....	26
Acceptance of the Phoebe Hearst Architectural Plan	70
Act making an appropriation of \$200,000 for the support and maintenance of the University of California	75
Act making an appropriation of \$50,000 for the use and benefit of the University of California	75
Additions to the Budget, 1900-1901	47
Affiliated Colleges Buildings, Fire protection for the	15
Anatomy, Establishment of a Chair of	21
Anatomy, \$5,000 to be included in budget for the Department of	47
Appointed Regents	9
Appointments	22-25
Appropriations by the Legislature	75
Ardley, H. T., Report of Finance Committee on claims of	48
Art Lectureship	68
Auditor's report to June 30, 1901	48-53

B	
Bear Gulch Water Company bonds, Purchase of	67
Board of Regents	9
Bonds and mortgages, Statement of	86
Bond to the United States for safe-keeping of cadet rifles, etc.	21
Budget	37-45
Budget, Additions to the	47
Building erected for Law Department to be used by Medical Department	20
Buildings	15

C	
Cash capital, June 30, 1901	76
Charles M. Hitchcock endowment	63
Commissions, Military	35
Contingent fund transferred to Director Campbell	20

D	
Dairy Department, Report of special committee on	17
Deed to Eliza W. Coit	64
Degrees conferred by the Board of Regents	30-34
Departmental disbursements for year ending June 30, 1901	87-89

Departments--	PAGE.
Chemistry.....	17
Dairying.....	17
Education.....	26
Lick Observatory.....	18
Mechanics.....	20
Medicine.....	20
Military Science and Tactics.....	21
Semitic Languages.....	22
Diplomas, Duplicate.....	68
Donations. (See Gifts.)	

E

Eclipse expedition to Sumatra authorized.....	19
Emeritus Professor of Surgery, Discontinuance of title of.....	21
Emanu-El fellowship in Semitic Languages.....	22
Expenditures and receipts from the State Appropriation (Two Cent Fund), for year ending June 30, 1901.....	89
Expenditures for the year ending June 30, 1901.....	79

F

Fellowships.....	22, 29
Finance Committee authorized to purchase Bear Gulch Water Company bonds.....	67
Financial and other statements.....	76
Fire protection for the Affiliated Colleges Buildings.....	15
Flood Endowment—	
Bonds of the Bear Gulch Water Company.....	67
Right of way granted to the Standard Electric Light Company.....	65

G

Gifts—	
From Congregation Emanu-El.....	22
From D. O. Mills.....	18
From Independent Electric Light and Power Company.....	20
From J. K. Moffatt et al., of portrait of Professor Howison.....	13
From John D. Spreckels.....	17
From Mrs. Jane K. Sather.....	71
From Mrs. Phoebe A. Hearst.....	15, 68, 70
From National Academy of Sciences.....	19
From Professor E. C. Pickering.....	19
From Prince André Poniatowski.....	20
From Ralph C. Daniels.....	29
From Standard Electric Company of San Francisco.....	20
From William H. Crocker.....	19
From William M. Bunker.....	17
From William R. Hearst.....	68
From Yale Alumni Association of California.....	29
To the University Library.....	94

H

	PAGE.
Hallidie, A. S., Memorial to the late Regent	12
Head of Department of Education, Appointment of	26
Hearst Architectural Plan	70
Hillegass Tract, Purchase of	55-63
History Reader, Appointment of	26
Hitchcock Endowment, Report on	64
Howison, George H., Portrait of Professor	13

I

Income for the year ending June 30, 1901	78
Income for the year ending June 30, 1902, estimated	37
Instructor of Military Science and Tactics, Detail of	25
Insurance	91
Investments	77

J

Jane K. Sather endowments	71-74
Johnson Building—	
Bid for underpinning of building accepted	54
Changes in building	53
New freight elevator	54

K

Keeler, Director, Salary continued	18
Kern County bonds, Redemption of	48

L

Lease of land to George Stutt	14
Leaves of absence	26
Legislation	75
Library—	
Attendance of readers	93
Collection of California authors	95
Exchanges	96
Grant of privileges	14
Growth	94
Inter-library loans	97
Loss of books	96
Reese Fund interest, apportionment of	13
Report on University publications	98
Rule governing use of University Library by residents of Berkeley	14
License to Market Street Railway Company	54
Lick Observatory	18
Lick Observatory budget	47
Loring, David W., Vote of thanks to	21

M

	PAGE.
Medical Department to use building erected for the Law College.....	20
Meetings of the Board of Regents.....	10
Memorial to the late Regent A. S. Hallidie	12
Military commissions	35
Mortgages and bonds, Statement of.....	86

O

Officers of the Board of Regents.....	10
Old reservoir on land recently purchased	14

P

Pacific Theological Seminary Tract, Purchase of	63
Phœbe A. Hearst Architectural Plan--	
Acceptance by Mrs. Hearst	70
Board of Advisers.....	71
Report of Trustees.....	68
Resolution of acceptance by Board of Regents.....	70
Special committee to draft letter of thanks to Mrs. Hearst.....	71
Vote of thanks to Jury of Award.....	71
Portrait of Professor George H. Howison	13
Property belonging to the University of California, value of.....	76
Purchase of Pacific Theological Seminary tract.....	63
Purchase of the Wandell tract.....	20

R

Ralph C. Daniels Scholarship.....	29
Reappropriations	48
Receipts and disbursements	81
Reese Fund interest, Apportionment of the.....	13
Reese Fund, Receipts and disbursements.....	90
Regents--	
Appointed	9
Ex officio.....	9
Meetings of the Board of.....	10
Officers of the Board of.....	10
Special committees of the Board of	11
Standing committees of the Board of	11
Terms of	9
Reports--	
Of Auditor to June 30, 1901.....	48-53
Of Finance Committee on claims of Henry T. Ardley.....	48
Of Finance Committee on the budget for year 1901-2.....	37
Of Special Committee on Dairying Department.....	17
Of Trustees of the Phœbe A. Hearst Architectural Plan	68-70
On condition of funds of the Wilmerding School of Industrial Arts.....	35
On fire protection for the Affiliated Colleges Buildings	15
Reservoir, Old.....	14

	PAGE.
Residence of graduate students at the Lick Observatory.....	18
Resignations	26
Resolutions <i>in re</i> purchase of Hillegass tract.....	55-63
Rule regulating residence of graduate students at the Lick Observatory	18

S

Sacramento Building, Revocable license granted to Market Street Railway Company	54
Salaries	38-45
Salary of the late Director Keeler continued	18
Salary of the late W. H. Hilton, Payment of the.....	47
Sale of Toland Medical College property.....	21
Scholarships, 1901-2.....	27-29
Special committees of the Board of Regents	11
Standard Electric Light Company, Right of way granted to.....	65
Standing committees of the Board of Regents	11
State appropriation (Two-Cent Fund) for fiscal year ending June 30, 1901	89
Statement of all receipts and disbursements for year ending June 30, 1901.....	81
Statement of bonds and mortgages	86
Stutt, George, Lease of land to.....	14
Summer School, Maintenance of the.....	67

T

Title of Emeritus Professor of Surgery discontinued.....	21
Toland Medical College property to be sold.....	21
Transactions of the Board of Regents.....	12
Trial balance for month of June, 1901	84

U

University site	14
Use of University Library by residents of Berkeley.....	14

V

Value of property belonging to the University.....	76
--	----

W

Wandell Tract, Purchase of	20
Wilmerding School of Industrial Arts—	
Appointment of a Director	35
Plans for new building	36
Report on condition of funds	35

Y

Yale Alumni Fellowship.....	29
-----------------------------	----

ANNUAL REPORT OF THE SECRETARY

TO THE

BOARD OF REGENTS OF THE UNIVERSITY OF CALIFORNIA.

To the Honorable Board of Regents of the University of California,

GENTLEMEN: I have the honor to submit my annual report for the fiscal year ending June 30, 1901.

BOARD OF REGENTS.

EX OFFICIO REGENTS.

HIS EXCELLENCY HENRY T. GAGE	Sacramento,
<i>Governor, ex officio President of the Board.</i>	
HIS HONOR JACOB H. NEFF	Auburn,
<i>Lieutenant-Governor.</i>	
HON. CORNELIUS W. PENDLETON	Los Angeles
<i>Speaker of the Assembly.</i>	
HON. THOMAS J. KIRK	Sacramento,
<i>State Superintendent of Public Instruction.</i>	
A. B. SPRECKELS	327 Market Street, San Francisco,
<i>President of the State Agricultural Society.</i>	
SAMUEL C. IRVING	116 Battery Street, San Francisco,
<i>President of the Mechanics' Institute.</i>	
BENJAMIN IDE WHEELER, Ph.D., LL.D.	Berkeley,
<i>President of the University.</i>	

APPOINTED REGENTS.

	† Term Expires.
ISAIAS WILLIAM HELLMAN, Nevada Bank, San Francisco	1902
WILLIAM T. WALLACE, 799 Van Ness Avenue, San Francisco	1902
GARRETT W. MCENERNEY, 309 Montgomery Street, San Francisco	1904
JAMES FRANKLIN HOUGHTON, 328 Montgomery Street, San Francisco	1904
ARTHUR RODGERS, 309 Montgomery Street, San Francisco	1906
JAMES A. WAYMIRE, Alameda	1908
C. N. ELLINWOOD, S. E. cor. Devisadero Street and Pacific Avenue	1908
CHARLES W. SLACK, 309 Montgomery Street, San Francisco	1910
CHESTER ROWELL, Fresno	1910
W. H. L. BARNES, Crocker Building, San Francisco	1912
J. B. REINSTEIN, 217 Sansome Street, San Francisco	1912
MRS. PHEBE A. HEARST, Mills Building, San Francisco	1914
GEORGE C. PARDEE, Chronicle Building, San Francisco	1914
JOHN E. BUDD, Stockton	1916
A. W. FOSTER, Mutual Life Building, San Francisco	1916

† Terms of Regents expire March 1st.

OFFICERS OF THE BOARD OF REGENTS.

HENRY T. GAGE, Governor of the State.....	Sacramento,
<i>Ex officio President of the Board.</i>	
* EDWARD WALKER DAVIS	2218 Union Street, Berkeley,
<i>Secretary.</i>	
WILLIAM ALFRED MCKOWEN	Fernwald Avenue, Berkeley,
<i>Acting Secretary and Land Agent.</i>	
WILLIAM HENRY PHIPPS	2730 Haste Street, Berkeley,
<i>Clerk in Secretary's Office.</i>	
MISS R. MEYERSTEIN.....	2116 Mission Street, San Francisco,
<i>Stenographer in Secretary's Office.</i>	
LOUIS SLOSS.....	310 Sansome Street, San Francisco,
<i>Treasurer.</i>	
JOHN BELL MHOON.....	401 California Street, San Francisco,
<i>Counsel.</i>	

Regular meetings of the Board of Regents are held in the Mark Hopkins Institute of Art, in San Francisco, on the second Tuesday of September, December, March, and June, and on the day preceding Commencement Day in May of each year.

EX-REGENTS OF THE UNIVERSITY OF CALIFORNIA.

TERM OF OFFICE.

		Years.	Months.
J. West Martin	November 29, 1871, to July 15, 1899	27	7½
Andrew S. Hallidie	December 24, 1873, to April 25, 1900	26	4
Horatio Stebbins	May 21, 1868, to March 1, 1894	25	9½
J. S. Hager	November 27, 1868, to March 19, 1890	21	4
T. G. Phelps.....	December 6, 1880, to June 11, 1899	18	6
J. F. Swift.....	March 1, 1872, to March 1, 1888	16	--
John L. Beard.....	March 1, 1876, to March 1, 1892	16	--
S. B. McKee.....	May 21, 1868, to May 9, 1883	14	11½
George T. Marye, Jr.	March 30, 1883, to March 1, 1898	14	11
J. W. Winans	December 24, 1873, to April 15, 1887	13	3½
Albert Miller.....	April 15, 1887, to April 16, 1900	13	--
J. Mora Moss.....	June 12, 1868, to December 6, 1880	12	6
G. J. Ainsworth.....	May 9, 1883, to October 20, 1895	12	5½
L. Archer.....	May 21, 1868, to March 1, 1880	11	9½
C. F. Crocker	March 1, 1888, to July 19, 1897	9	4½
J. B. Felton	June 12, 1868, to May 12, 1877	8	11
C. Bartlett.....	September 17, 1887, to March 20, 1896	8	5½
A. L. Rhodes	January 12, 1880, to March 1, 1888	8	1½
Henry S. Foote	April 13, 1892, to March 1, 1900	7	10½
William Ashburner	March 3, 1880, to April 20, 1887	7	1½
D. O. Mills	June 23, 1874, to July 1, 1881	7	--
George Davidson	May 14, 1877, to March 1, 1884	6	9½
W. C. Ralston	November 27, 1868, to September 3, 1875	6	9
D. M. Delmas	August 5, 1885, to April 13, 1892	6	7
J. W. Dwinelle	May 21, 1868, to October 12, 1874	6	4¾
Louis Sachs	August 31, 1869, to October 19, 1875	6	1¾
S. Merritt	May 21, 1868, to June 23, 1874	6	1
R. P. Hammond	May 21, 1868, to December 24, 1873	5	7
S. F. Butterworth	June 12, 1868, to December 24, 1873	5	6½

*Absent on leave.

Ex-Regents of the University of California—Continued.

	Term of Office.	Years.	Months.
E. Tompkins	June 12, 1868, to December 13, 1872	4	6
F. M. Pixley	September 3, 1875, to March 3, 1880	4	6
J. F. Doyle	May 21, 1868, to March 1, 1872	4	--
E. Casserly	April 20, 1876, to January 12, 1880	3	8¾
W. Watt	May 21, 1868, to November 29, 1871	3	6½
H. H. Haight	December 13, 1872, to April 20, 1876	3	4
B. B. Redding	March 3, 1880, to September 14, 1882	2	6½
N. G. Curtis	December 6, 1880, to March, 1883	2	3
A. J. Bowie	January 12, 1878, to March 1, 1880	2	1¾
Stephen M. White	March 20, 1899, to February 20, 1901	1	11
J. M. Hamilton	April 22, 1874, to January 18, 1876	1	9
W. S. Rosecrans	March 1, 1884, to August 5, 1885	1	5
W. Meek	October 12, 1874, to March 1, 1876	1	4¾
I. Friedlander	June 12, 1868, to August 31, 1869	1	2¾
James D. Phelan	March 22, 1898, to March 20, 1899	1	--
Louis Sloss, Jr.	April 1, 1890, to January 27, 1891	--	10
John Bidwell	March 3, 1880, to December 6, 1880	--	9
Leland Stanford	September 14, 1882, to March 12, 1883	--	6
A. J. Moulder	June 12, 1868, to November 27, 1868	--	5½
F. F. Low	June 12, 1868, to November 12, 1868	--	5

STANDING COMMITTEES FOR THE YEAR 1900-1901.

Endowment, Finance, and Audit	Regents FOSTER, HELLMAN, PARDEE.
Buildings and Grounds	Regents HEARST, PARDEE, REINSTEIN.
Library and Museum	Regents SLACK, KIRK, ANDERSON.
Lick Observatory	Regents BARNES, SLACK, PARDEE.
Congressional Land Grants	Regents WALLACE, RODGERS, WHITE.
U. S. Agricultural Experiment Stations	Regents HOUGHTON, ROWELL, BUDD.
Wilmerding School	Regents HOUGHTON, DENICKE, WALLACE.
Flood Endowment	Regents RODGERS, SLACK, WHITE.

Regent Pardee moved that Regent Irving be substituted on the Library and Museum Committee in place of Mr. Anderson, on the Wilmerding School Committee in place of Mr. Denicke, and on the Flood Endowment Committee in place of the late Senator White. [Carried April 19, 1901.]

SPECIAL COMMITTEES.

1900—Sept. 18— On C. M. Hitchcock Legacy	Regents DENICKE and WALLACE.
Dec. 14— To Draft Letter of Thanks to Mrs. Phoebe A. Hearst	Regents BARNES, PARDEE, and ANDERSON.
1901—April 9— On the Establishment of a Dairy School	Regents FOSTER, HOUGHTON, and BUDD.
April 24— On Scope and Bearing of Resolution relative to the Holding of Political Offices by Professors of the University	Regents FOSTER, BUDD, and WAYMIRE.

TRANSACTIONS OF THE BOARD OF REGENTS.

Memorial of the late Regent Hallidie.

Regent Slack submitted the following:

Your committee appointed to prepare resolutions in memory of the late Regent Hallidie submit to your Honorable Board the following:

Andrew Smith Hallidie died in San Francisco on the 24th day of last April. It is appropriate to record in the proceedings of this Board a brief sketch of his well-spent life and of his eminent services to the University and to the public. Mr. Hallidie was of Scotch descent. He was born in London, England, March 16, 1836. He had but little schooling, yet he made himself an accomplished mechanical engineer, and even a learned man. He came to California when he was but seventeen years of age, and first engaged in mining. Being unsuccessful in mining, he turned his attention to the business of engineering, for which he had an inherited inclination. In 1855, when but nineteen years of age, he designed and built a wire suspension flume across the Middle Fork of the American River, for the purpose of conducting water to mines. He became interested in making wire rope, and in 1857 established a manufactory for that purpose in San Francisco. From 1858 to 1868 he designed and built a large number of bridges, principally wire suspension bridges, across several rivers in this State and in British Columbia. He made several inventions for the transmission of power, and for the transportation of freight over cañons and rough surfaces, by means of endless wire ropes. His most important invention was that of the cable railway, which was perfected and first put in practical use in San Francisco in 1873. This invention brought him fame and fortune.

As President of the Mechanics' Institute, Mr. Hallidie, attended the first meeting of this Board, as a Regent of the University, on June 9, 1868. Continuously from that time to the date of his death he was a member of this Board, either as President of the Institute, or by virtue of appointment from the Governor of the State. He was a member of the Auditing Committee of the Board from July 15, 1868, until the Auditing Committee and the Finance Committee were consolidated in June, 1874, when he became Chairman of the Finance Committee, a position which he held until the time of his death. Much of the successful handling of the funds of the University is due to his careful attention to details and to his wise and conservative counsel. During the period between the election and the installation of President Wheeler, Mr. Hallidie acted as President of the University.

Although a conservative man, Mr. Hallidie was always ready to accept new ideas in the educational affairs of the University. He fully understood and appreciated the good in education, and wanted nothing but the best. While interested in all branches of learning, he was particularly interested in manual training, and gave much thought and attention to the organization of the Wilmerding School and to the conduct of the California School of Mechanical Arts, of which latter institution he was a valued trustee. At the request of this Board, he visited the various trades schools of the country, and selected the principal of the Wilmerding School.

Mr. Hallidie was not a politician, but he always took an active part in municipal affairs, especially in reform movements. He was a member of two boards of freeholders, formed for the purpose of framing a charter for the government of San Francisco.

Every position in his public life he has filled with honor, fidelity, and integrity. In his private life he was devoted to his family and true to his friends.

Be it therefore

Resolved, That in the death of Andrew Smith Hallidie this Board has lost a wise counselor and the University a faithful servant; be it further

Resolved, That this memorial and these resolutions be spread upon the minutes of this Board.

[Adopted, July 24, 1900.]

LIBRARY.

Apportionment of Reese Fund Interest.

The Committee on Library and Museum submitted the following resolutions:

(1) *Resolved*, That the sum of \$2,860 of Reese Fund income be appropriated for the purchase of books and allowed to the several departments of instruction as in accompanying schedule.

(2) *Resolved*, That the several heads of departments hand in to the Librarian, on or before December 15th, book lists covering the apportionments.

(3) *Resolved*, That if any head of department fails to present his book lists by said date, the Librarian shall pro rate his allotment among the other departments.

Agriculture, Viticulture, Entomology	\$105 00
Astronomy	95 00
Botany	105 00
Chemistry	105 00
Civil Engineering	105 00
Commerce, Geography	105 00
Drawing (Prof. Kower).....	60 00
Education	105 00
English Language and Literature.....	200 00
French Language and Literature (Romance).....	110 00
German Language and Literature.....	110 00
Greek Language and Literature.....	115 00
Latin Language and Literature.....	115 00
Geology, Palæontology.....	75 00
Mineralogy.....	75 00
Zoölogy	75 00
History, Politics, Economics.....	200 00
Jurisprudence.....	105 00
Mathematics	105 00
Mechanical Engineering	105 00
Mining and Metallurgy	105 00
Oriental Philology (Chinese, etc.).....	105 00
Philosophy	120 00
Physics.....	105 00
Semitic Philology.....	50 00
General Works (Librarian).....	200 00

[Adopted, December 11, 1900.]

Portrait of Professor Howison.

President Wheeler submitted the following:

I recommend that a vote of thanks be extended to J. K. Moffitt, Alexander G. Eells, and the other donors of the portrait of Dr. George Holmes Howison, Mills Professor of Intellectual and Moral Philosophy and Civil Polity, which has just been placed in the University Library.

It is the request of the donors that as soon as the Philosophy Department is housed in a building of fire-proof construction, the portrait should be hung upon the walls of the Philosophy building.

[Concurred in, September 12, 1900.]

Use of University Library by Residents of Berkeley.

The Committee on Library and Museum submitted the following:

Your Honorable Board has referred to your Committee on Library and Museum the following proposed rule, adopted by the Graduate Council of the University, on September 28, 1900:

"Persons resident in Berkeley, who may desire to pursue courses of study or reading without becoming members of the University, may have full student privileges in the Library, provided each application for such privileges be endorsed by two members of the Academic Senate and be accompanied by a deposit of \$10 in the office of the Secretary of the University. In each case such deposit, less charges for damage and loss of books and fines for violation of rules, shall be returned to the depositor, when he no longer desires to use the Library. Such privileges shall lapse on the 30th day of June of each year, but may be renewed on application to the Librarian."

Your committee, after fully considering the proposed rule, recommends to your Honorable Board that it be approved.

[Concurred in, March 12, 1901.]

Privileges of Library.

President Wheeler reported as follows:

On the recommendation of the Librarian, I recommend that the privileges of the Library be granted to Mrs. Jane K. Sather, E. A. Denicke, and Mrs. A. S. Hallidie.

[Carried, April 19, 1901.]

UNIVERSITY SITE.**Lease of Hill Land to George Stutt.**

The Committee on Grounds and Buildings offered the following recommendation:

That the offer of Mr. George Stutt to lease, for one year, certain portion of the University land, for the sum of \$150 per annum, as set forth in his proposal submitted to the Finance Committee, be accepted; and that the Attorney of the Board be, and he is hereby, authorized and directed to draw the necessary papers, and that the President of the University be, and he is hereby, authorized to lease, for the University, said land, for one year, as above set forth.

Regent Rodgers moved that the report of the Committee be approved, and that such reservation be placed in the lease as shall permit the Board of Regents to take possession of the land at any time by giving notice and refunding to Mr. Stutt such pro rata of the year's rental as may be determined by the Committee on Grounds and Buildings. [Concurred in, March 12, 1901.]

Old Reservoir on Land Recently Purchased.

Regent Pardee submitted a communication from Professor Lewis in reference to a discarded reservoir on land recently purchased by him.

Referred to the Committee on Grounds and Buildings, the President of the University, and the Attorney of the Board, with power. [April 19, 1901.]

Gift of Land by Mrs. Phœbe A. Hearst.

Upon motion, President Wheeler was requested to express to Mrs. Hearst the grateful acknowledgments of the Board for her donation to the University of the land upon which the Women's Gymnasium stands, together with all other improvements. [April 19, 1901.]

BUILDINGS.**Fire Protection for Affiliated Colleges Buildings.**

The Committee on Grounds and Buildings submitted the following:

We have examined the buildings on the Sutro site now used by the Medical Department of the University and its surroundings, with a view of determining what fire protection should be given to such buildings, and have consulted with the Chief of the Fire Department of the City of San Francisco, in that same connection. Inasmuch as the law prohibits the insurance of these buildings, we believe that it is especially incumbent on the Board to take every precaution against loss or destruction of these buildings by fire, and we therefore recommend that the Board should appropriate a sum of money sufficient to protect all of the Affiliated Colleges buildings on the Sutro site in San Francisco; and that the equipment of such buildings should be insured against fire; and inasmuch as the matter of protection of these buildings against fire is one of urgency, we ask that the committee should be given power to expend forthwith a sum of money not to exceed \$1,500, for such fire protection, under the advice and upon consultation with the Chief of the Fire Department of the City of San Francisco, Mr. Sullivan.

[Concurred in, on a call of the ayes and noes, April 19, 1901.]

Regent Reinstein submitted the following report:

Your Committee on Grounds and Buildings, to whom was referred the matter of the insurance on the equipment of the Departments of Medicine and Dentistry, and of the Affiliated College of Pharmacy, and fire protection for the buildings used by said departments and affiliated college, and also fire protection for the building formerly intended for the Hastings College of the Law, all on the Sutro site, in the City and County of San Francisco, begs leave to report as follows:

Your committee has called on Chief Sullivan, Chief of the Fire Department of the City and County of San Francisco, and in conjunction with Mr. Waters, of said Fire Department, and the chief of the district wherein said buildings are situated, and after a thorough examination of said buildings by the above named, taking into consideration a former examination by Mr. Shaughnessy, of said Fire Department, report the following as requisites for the efficient fire protection of said buildings:

Medical Department.

In the central building of those on said site, which has been used since the erection of said buildings by the Department of Medicine, the following is required:

1. In the basement of said building, two hose reels, with 100 feet each of cotton hose, 1½ inches in diameter, on the north side of the said building, in the center of the drive-way, said reel to have thereon 100 feet of 1½-inch cotton hose connected with the water-pipe in the engine-room of said building:

2. On the first floor of said building, two reels on the northerly side of said building, connecting with the stand-pipes therein, containing each 100 feet of 1½-inch cotton hose. Two reels in the auditorium, containing 50 feet each of 1½-inch cotton hose. One reel in the southeast lobby of the auditorium, with 100 feet of 1½-inch cotton hose.

3. On the second floor of said building, two reels on the northern side of said building, containing each 100 feet of 1½-inch cotton hose.

4. On the third floor of said building, two reels, containing each 100 feet of 1½-inch cotton hose.

On the third floor of said building it will be necessary to lengthen the westerly stand-pipe on the interior of the building, so that it shall run to the third floor of said building.

Pharmacy Department.

In the building devoted to pharmacy, there is required as follows:

1. In the basement, one reel of 100 feet of 1½-inch cotton hose.
2. On the first floor, one reel, with 100 feet of 1½-inch cotton hose.
3. On the second floor, one reel, with 100 feet of 1½-inch cotton hose.

It will be necessary to extend the stand-pipe in said Pharmacy building so as to connect on the second and third floors.

Dentistry Department.

In the Dentistry building there is required:

1. 100 feet of 1½-inch cotton hose, together with a reel for the same, in the basement, first, second, and third floors.

A stand-pipe will be required on the Pharmacy and Dental building, Medical building, and the building formerly devoted to the Law College, on the outside of each of said buildings, as follows: On the west side of the Dental building; on the east side of the Medical building, and on the east side of the building formerly intended for the Hastings College of the Law. Two fireman's axes will be required under each reel.

Additional keys for the fire-alarm box in front of the building of the Medical Department were required, and have been obtained by your committee.

Seven small lines of 50 feet each of cotton hose, from ½ to 1 inch in diameter, will be required, one for each laboratory in the buildings above referred to.

The elevators in the building devoted to the Medical Department and in the building formerly devoted to the Veterinary Department must be lined with galvanized iron.

Your committee further reports that two or three additional hydrants should be placed along Parnassus Avenue, nearer to the buildings in question; and that the roads leading up to such buildings should be so repaired that the apparatus of the Fire Department of the City of San Francisco can be safely and easily driven to the buildings in question.

In reference to these hydrants, your committee has written already to the Spring Valley Water Company, and to the Board of Supervisors of the City and County of San Francisco; and in reference to the improvement of the highways leading to the buildings above mentioned, a letter has been directed to the Board of Public Works of the City of San Francisco.

Your committee desires to report the estimated cost of the fire protection for said buildings, as follows:

Fire hose and reels in the Medical Department Building	\$500 00
Fire hose and reels in the Pharmacy Building	250 00
Fire hose and reels in the Dental Building	250 00
For the lining of the elevators	100 00
Fire hose for the laboratories	100 00
Fire axes	100 00
And for stand-pipes	750 00

these figures being considered a little over, rather than under the actual cost.

Your committee begs to report that they have insured the apparatus, appliances, and equipment in the building devoted to the Medical Department of the University of California, and in its clinic, for \$57,500 for three years, at a cost of \$740.50.

We have not insured the equipment and appliances of the Dental College, or of the College of Pharmacy, because the property of neither of these colleges has been conveyed, as yet, to the Regents of the University.

Your committee further recommends that the trees on the hills just back of the Affiliated Colleges buildings should be cut down for a sufficient distance to safeguard the buildings against fire in the woods. Your committee hopes to have these trees cut by people who are willing to cut down the trees in exchange for their wood; but should we be unable to accomplish this, it is thought that such trees can be cut down at a cost not to exceed \$100.

[Recommendations concurred in, on a call of the ayes and noes,
June 28, 1901.]

DEPARTMENT OF CHEMISTRY.

Gift of Collection of Specimens.

President Wheeler recommended a vote of thanks to William M. Bunker for his gift of a collection of specimens illustrative of the chemistry of structural material; and to John D. Spreckels for his generous offer to bring this collection to California on one of his ships, free of charge. [Concurred in, March 12, 1901.]

DEPARTMENT OF DAIRYING.

The Special Committee on Dairy Department submitted the following:

Inasmuch as it seems best that the Dairy Department be established in Berkeley, we submit, herewith, a plan for its foundation and estimates for equipment and operating expenses based on the appropriation of \$10,000 for dairy purposes for the year beginning July 1, 1901. The estimates as given provide for the location of the Dairy School in the basement rooms of Agricultural Hall and for the erection of suitable dairy barns on University land in Strawberry Cañon—the hill land to be used for pasture, and outside land to be rented so far as necessary to grow forage crops.

We wish to add in this connection that Mr. Anderson has investigated to a considerable extent the lands lying between Berkeley and San Pablo, with a view to locating the dairy farm somewhere in that region on soil more easily cultivated. It is quite impossible, however, to secure any satisfactory prices for rental, and the increased expense of such location would in nowise be covered by our available appropriation. I have, therefore, settled upon the use of present University property as the most practical solution of the problem.

Upon looking over the field carefully, I find that the appropriation of \$10,000 is not sufficient properly to equip and operate the Department for the work we are expected to do. I have, therefore, made up the estimates more in accordance with our needs than with the amount of available funds, in the hope that what is not furnished during the year 1901-2, *may* be during the following year. Two items of equipment are indicated by an asterisk (*) as more easily dispensed with for the first year than any of the other items. They should, however, be provided as soon as possible, because our work of instruction and experimentation is severely handicapped by their absence. The estimates for these items (\$1,700), together with the \$300 furnished by the Experiment Station for expenses and supplies for the Veterinarian, deducted from the total estimate of \$12,000, brings the budget to the original appropriation of \$10,000.

The estimates for equipment and operating expenses of the Dairy Department, as suggested above, for the year beginning July 1, 1901, are herewith appended:

EQUIPMENT.

Dairy School—

Fitting up rooms	\$500 00	
Supplies for school	1,200 00	
* Refrigerating plant	1,400 00	
		<hr/> \$3,100 00

Dairy Farm—

Barns and silo	\$2,000 00	
* Silage machinery and power	300 00	
Team	200 00	
Wagons and tools	400 00	
Cattle, fifteen head	750 00	
Grading and fencing	150 00	
		<hr/> 3,800 00
Total equipment		<hr/> \$6,900 00

Total equipment.....	\$6,900 00
OPERATING EXPENSES.	
Instructor in Dairy Husbandry.....	\$1,200 00
Veterinarian.....	1,200 00
Instructor in Butter-making.....	300 00
Instructor in Cheese-making.....	300 00
Traveling expenses for Dairy Instructor.....	250 00
Traveling expenses and equipment for Veterinarian.....	300 00
Stenographic services.....	200 00
Labor.....	600 00
Additional and incidental expenses of Dairy School.....	500 00
Feed for stock.....	250 00
	<hr/> \$5,100 00
Total equipment and expenses.....	\$12,000 00
Deduct items marked * (\$1,700) and \$300, provided by Experiment Station for Veterinarian.....	2,000 00
	<hr/> \$10,000 00

Regent Budd moved that the report of the committee be approved, and that the expenditures recommended be allowed to the extent of \$10,000. [Carried, on a call of the ayes and noes, May 14, 1901.]

DEPARTMENT OF LICK OBSERVATORY.

Thanks to Hon. D. O. Mills.

President Wheeler recommended that a vote of thanks be extended to Hon. D. O. Mills for his munificent offer to defray the expenses, to the amount of \$24,000, of a two-years' astronomical expedition from the Lick Observatory to an observing station south of the equator, for the study of the movement of the stars in the line of sight. [Adopted, December 11, 1900.]

Salary of the late Director Keeler Continued.

President Wheeler moved that the salary of Director Keeler be continued and paid to his widow from the date of his death to December 31, 1900. [Carried, on a call of the ayes and noes, December 11, 1900.]

Rule in re Residence at Mount Hamilton of Candidates for Degrees of M.S. and Ph.D.

The Committee on Lick Observatory submitted the following:

At the meeting of the Board of Regents held on the 11th of December, 1900, the Board of Regents referred to the Committee on Lick Observatory, with power to act, a communication from the Graduate Council, recommending that the following rule be rescinded, to wit: "All candidates for a master's degree must reside at Mount Hamilton at least four months, and all candidates for a doctor's degree at least eight months."

Before considering the matter, the committee thought it expedient to consult Professor W. W. Campbell, Acting Director of the Lick Observatory. His opinion is expressed in a letter addressed by him to the Chairman of the Lick Observatory Committee under date of December 20, 1900, hereto annexed. It will be observed that Professor Campbell recommends that the request of the Graduate Council be granted. It also appears that a substitute rule, formulated and approved by Professor Campbell, has been adopted by the Academic and Graduate Councils. According to its terms, the time of residence at Mount Hamilton is decided in each case by the proper committee of the Faculty, which enables each case to be decided on its merits and accords better with conditions at the Observatory.

The Committee on Lick Observatory therefore recommends that the rule that candidates for a master's degree must reside at Mount Hamilton at least four months, and all candidates for a doctor's degree at least eight months, be rescinded, and that the substitute rule adopted by the Academic and Graduate Councils, hereinabove referred to, be approved and ratified.

[Adopted, March 12, 1901.]

Thanks to National Academy of Sciences.

President Wheeler recommended a vote of thanks to the National Academy of Sciences for its grant of \$500 from the Draper Fund for the promotion of scientific research for the construction of a modern one-prism spectograph for the Lick Observatory. [Concurred in, March 12, 1901.]

Thanks to Professor E. C. Pickering.

President Wheeler recommended a vote of thanks to Professor Edward C. Pickering, Director of the Harvard College Observatory, for his kindness in loaning two lenses to the University for the use of the Crocker Eclipse Expedition to Sumatra. [Concurred in, March 12, 1901.]

Eclipse Expedition to Sumatra Authorized.

The Finance Committee reported as follows:

The following matters have been referred to this committee by the Committee on Lick Observatory, with favorable recommendation, and we present them to the Board with the further indorsement of the Finance Committee:

Resolved, That Assistant Astronomer C. D. Perrine is hereby authorized to proceed, without loss of salary, to Sumatra on or about February 15, 1901, to establish an eclipse station, returning to Mount Hamilton on or about August 1, 1901.

Resolved, That the cost of the expedition shall be paid from the gift of William H. Crocker, Esq., and that the safe return of all instruments belonging to the Observatory or loaned by others shall be fully insured.

Resolved, further, That Director Campbell be instructed to prepare general plans and directions for the expedition, and that he be authorized to furnish such instruments and supplies as can be spared and are necessary for use on the expedition.

Resolved, That during the absence of Assistant Astronomer Perrine in connection with the Crocker Eclipse Expedition to Sumatra, he have the title of Acting Astronomer, and that on account of the extraordinary personal expenditures he be paid an additional sum of \$200.

Resolved, That Ralph H. Curtiss be appointed Assistant at the Lick Observatory from February 15 to August 1, 1901, without pay, but with all necessary expenses paid from the William H. Crocker Fund, with the understanding that he be appointed Assistant at the Lick Observatory from August 1, 1901, to July 1, 1902, with salary at the rate of \$600 per annum.

Resolved, That A. J. Cloud be appointed Secretary of the Lick Observatory from March 15, 1901, with salary at the rate of \$750 per annum, and that Mr. C. D. Perrine be relieved from the duties and title of Secretary.

[Adopted, on a call of the ayes and noes, March 12, 1901.]

Thanks to William H. Crocker, Esq.

President Wheeler recommended a vote of thanks to Mr. William H. Crocker for his gift of \$3,000 to defray the expenses of an expedition from the Lick Observatory to Sumatra to observe the total eclipse of the sun. [Concurred in, March 12, 1901.]

Contingent Fund Transferred to Director Campbell.

The Finance Committee recommended that the contingent fund of \$800, held by the late Director Keeler, be transferred to Director Campbell. [Concurred in, on a call of the ayes and noes, March 12, 1901.]

Purchase of Wandell Tract Authorized.

Counsel Mhoon reported as follows in regard to the purchase of the Wandell tract of forty acres:

Mr. Wandell owned a tract of forty acres of land adjoining Smith's Creek. Some years ago he desired to sell it, and Director Holden loaned him \$150 of his own money and took a mortgage and his note.

When Director Holden left the Observatory he transferred, for the same valuable consideration, the note and mortgage to Professor Keeler. Professor Keeler died, still holding this note, it being understood that whenever the University wanted it, it should have the property.

The proper course, it seems to me, would be to buy the land of Mr. Wandell, subject to the mortgage and note to be paid to Mrs. Keeler. There is about \$150 due on the note, plus the interest thereon.

Regent Wallace moved that the President of the University be authorized to negotiate for and purchase the forty acres belonging to Mr. Wandell, and to pay Mrs. Keeler the amount of her claim. [Concurred in, on a call of the ayes and noes, June 28, 1901.]

DEPARTMENT OF MECHANICS.**Thanks to Independent Electric Light and Power Company.**

President Wheeler recommended that a vote of thanks be extended to the Independent Electric Light and Power Company for its gift of a Westinghouse inductor motor to be used in the Department of Mechanics. [Adopted, December 11, 1900.]

Thanks to Standard Electric Company of California.

President Wheeler recommended a vote of thanks to Prince André Poniatowski, President of the Standard Electric Company of California, for the company's gift of insulators and electrical material to be used by the Electrical Engineering Department of the University, in experiments concerning high-pressure transmission of electricity. [Concurred in, March 12, 1901.]

DEPARTMENT OF MEDICINE.**Medical Department to Use Building Erected for Use of the Law Department.**

The Committee on Grounds and Buildings recommended the adoption of the following preamble and resolution:

WHEREAS, The Hastings College of the Law has declined to use the building intended for it, in the group of buildings erected for the use of the professional and affiliated colleges and other departments of the University of California, erected pursuant to the Act of the Legislature of the State of California, approved March 23, 1893; and

WHEREAS, The Medical Department of the University has present and prospective use for the same;

Resolved, That the Medical Department of the University of California shall have the use of the whole or such parts of said building formerly intended for the Hastings College of the Law, as may be necessary or proper for the purposes of a Medical School.

[Adopted, and the Committee on Grounds and Buildings was authorized to permit the Medical Department to occupy so much of the space in the Law Building as shall be necessary or proper for the purposes of the Medical Department. April 19, 1901.]

Chair of Anatomy Established.

Regent Foster moved that a Chair of Anatomy be established in the University, as recommended by President Wheeler. [Carried, June 28, 1901.]

Finance Committee to Negotiate for Sale of Toland Medical College Property.

Regent Reinstein, on behalf of the Committee on Status of the Medical Department and the Committee on Grounds and Buildings, recommended that the Finance Committee be authorized to negotiate for the sale of the property known as the Toland Medical College property, and certain lots on Potrero Avenue purchased for the benefit of the Medical Department, and that the money be turned into the funds of the University of California. [Carried, on a call of the ayes and noes, June 28, 1901.]

Title of Emeritus Professor of Surgery Discontinued.

President Wheeler reported as follows:

I have a communication from the Dean of the Dental Department recommending the discontinuance of the title of "Emeritus Professor of Surgery," held by W. E. Taylor, M.D., inasmuch as he is not now and has not been for several years a resident of California. I recommend that the title be discontinued.

[Concurred in, June 28, 1901.]

DEPARTMENT OF MILITARY SCIENCE AND TACTICS.

Thanks to David W. Loring, Esq.

President Wheeler submitted the following:

I recommend that a vote of thanks be tendered to Mr. David W. Loring for his services given, without pay, during the past year as Instructor of the Military Band.

[Concurred in, July 24, 1900.]

Bond to United States for Safe-keeping of Cadet Rifles, etc.

The Finance Committee recommended the adoption of the following resolution:

Resolved, That the President of the University and the Acting Secretary of the Board of Regents be and are hereby authorized to execute, on behalf of the Board of Regents, a bond in the penal sum of \$6,338.50, for the safe-keeping of cadet rifles and equipments about to be issued by the United States to the University of California and for the return of the same thirty days after demand, in good order, to the Chief of Ordnance or other officer designated by the Secretary of War.

[Adopted, on a call of the ayes and noes, March 12, 1901.]

DEPARTMENT OF SEMITIC LANGUAGES.

President Wheeler submitted the following:

It affords me great pleasure to present the following letter from Dr. Jacob Voorsanger:

SAN FRANCISCO, January 30, 1901.

THE HON. BENJAMIN IDE WHEELER,

President of the University of California,

MY DEAR SIR: The Congregation Emanu-El of San Francisco, having recently celebrated the fiftieth anniversary of its founding, the ladies connected with that organization desire to establish a permanent memorial of the jubilee. They wish that memorial to take the form of one or two fellowships in the Semitic Department of the University of California, to be named Emanu-El Fellowship in Semitic Languages, so that the name of the great congregation they represent may in this manner remain identified with the progress of learning in California and on the Pacific Coast.

The time having been too short to raise the permanent endowment for these fellowships, I am authorized to tender you the amount of six hundred dollars, being five hundred dollars for the first year's stipend and one hundred dollars to provide such acquisitions as the Semitic library may need at the present time. I am assured that a similar amount for the purposes stated will be forthcoming from year to year, until the requisite endowment of fifteen thousand dollars will have been collected, which collection, I anticipate, will be completed within the next two years.

I have the honor herewith to enclose my check for the amount, and if this contemplated foundation meets with your approval and the sanction of the Board of Regents, the Semitic Department will ask your consent to name the stipendiaries for the academic year commencing August, 1901.

I have the honor to subscribe myself, Mr. President,

Very respectfully,

JACOB VOORSANGER,

Rabbi of Temple Emanu-El,

Professor of Semitic Languages and Literature,
University of California.

I recommend a vote of thanks to the ladies of the Congregation Emanu-El for their wise and far-seeing generosity, and that the fellowships proposed be established when the endowment shall be completed.

[Concurred in, March 12, 1901.]

APPOINTMENTS, 1900-1901.

1900—July 24—Wm. C. Hopkins, M.D., Clinical Professor of Ophthalmology and Otology (Medical Department).

Chas. A. von Hoffman, M.D., Professor of Gynecology (Medical Department).

Herbert C. Moffitt, M.D., Professor of the Principles and Practice of Medicine (Medical Department).

Le Newmark, M.D., Lecturer on Neural Pathology.

A. A. D'Ancona, M.D., Lecturer on Physiology in Relation to the Action of Drugs (Department of Pharmacy).

Charles Rubens Keyes, Instructor in German.

Miss Anna Fossler, Cataloguer in the University Library.

Dr. Arthur S. Eakle, Assistant in Mineralogy.

Marion Clyde Wier, Reader in Greek.

Lincoln Hutchinson, Instructor in Economics.

Dr. Chas. A. Kofoid, Assistant Professor of Histology and Embryology.

Frank Freeman Ellis, Assistant in Zoölogy.

H. De H. Waite, Professor of Military Science and Tactics.

W. H. Weslar, Assistant in Chemistry.

H. N. Cooper, Assistant in Chemistry.

- 1900—Sept. 12—C. A. Colmore, Clerk to the Director of Agricultural Experiment Stations.
 John McHenry, Instructor in Mechanical and Architectural Drawing in the Wilmerding School.
 Ralph H. Curtiss, Student Assistant in Astronomy.
 Dr. Herbert Meredith Reese, Fellow in Astronomy at the Lick Observatory.
 J. P. Nourse, Reader in Greek.
 Michael Ongerth, Reader in German.
 H. T. A. Hus, Honorary Fellow in French.
 Harold C. Bradley, Assistant in Chemistry.
 J. S. Bright, Student Assistant in Civil Engineering.
- Sept. 18—W. W. Campbell, Acting Director of the Lick Observatory.
 W. D. Craig, Assistant in Chemistry.
 M. L. Plumb, Assistant in Chemistry.
 W. H. Hilton, Assistant in Assaying.
- Oct. 9—H. L. Ryfkogel, M.D., Professor of Pathology and Applied Microscopy in the Post-Graduate Medical Department.
 R. Beverly Cole, M.D., Emeritus Professor of Obstetrics and Gynecology in the Medical Department.
 Beverly MacMonagle, M.D., Lecturer on Gynecology in the Medical Department.
- Dec. 11—G. W. Monroe, Reader in Chemistry.
 J. S. Montague, Assistant in Chemistry.
 Julia M. Edwards, Instructor in History in the Wilmerding School.
 W. W. Campbell, Director of the Lick Observatory.
- Dec. 14—Dr. H. C. Myers, Honorary Fellow in Agriculture.
 C. E. Fryer, Reader in History.
- 1901—Mar. 12—William Inch, Reader in Greek.
 R. E. Gibbs, Reader in English.
 Cornelius G. Dall, Assistant in the Lick Observatory.
 J. D. Maddrill, Student Assistant in the Students' Observatory.
 J. A. Madsen, Laboratory Mechanic in the Chemical Laboratory.
 Ralph H. Curtiss, Assistant at the Lick Observatory.
 A. J. Cloud, Secretary of the Lick Observatory.
 Elwood Mead, Professor of the Institutions and Practices of Irrigation.
 George A. Merrill, Director of the Wilmerding School of Industrial Arts.
- April 19—Miss Anna Fossler, Cataloguer.
 Miss Amy L. Phelan, Assistant in the Library.
 J. A. Rowell, Assistant in the Library.
 J. J. Gillick, Assistant in the University Printing Office.
 R. H. Loughridge, Assistant Professor of Agricultural Geology and Agricultural Chemistry.
 M. E. Jaffa, Assistant Professor of Agriculture.
 C. W. Woodworth, Assistant Professor of Entomology.
 G. E. Colby, Instructor in Agricultural Laboratory.
 Leroy Anderson, Instructor in Dairy Husbandry.
 F. T. Bioletti, Instructor in Charge of Viticulture, Olive Culture, and Bacteriology.
 E. H. Twight, Assistant in Viticulture and Horticulture.
 E. Kellner, Gardener College of Agriculture and Superintendent of Grounds.
 D. T. Fowler, Conductor of Farmers' Institutes.
 A. J. Cook, Conductor of Farmers' Institutes.
 J. H. Barber, Foreman South Coast Range Experiment Station.
 J. W. Neal, Foreman Foothill Station.
 F. J. Snow, Student Assistant in Agricultural Laboratory.
 S. D. Townley, Instructor in Practical Astronomy.
 Miss Adelaide Hobe, Assistant in Astronomy.
 W. L. Jepson, Assistant Professor of Botany.

1901—April 19—W. J. V. Osterhout, Assistant Professor of Botany.

N. L. Gardner, Assistant in Botany.

J. B. Davy, Assistant in Botany and Assistant Botanist to Agricultural Experiment Stations.

W. C. Blasdale, Instructor in Chemistry.

Edward Booth, Instructor in Chemistry.

Charles Gilman, Assistant in Chemistry.

H. I. Randall, Assistant Professor of Civil Engineering.

L. E. Hunt, Instructor in Civil Engineering.

A. E. Chandler, Instructor in Civil Engineering.

J. H. Stutt, Graduate Assistant in Civil Engineering.

Herman Kower, Assistant Professor of Drawing.

B. R. Maybeck, Instructor in Architecture.

A. V. Saph, Instructor in Drawing.

C. Chapel Judson, Instructor in Drawing.

T. F. Sanford, Assistant Professor of English Literature.

W. D. Armes, Assistant Professor of English Literature.

M. C. Flaherty, Instructor in Argumentation.

R. S. Phelps, Assistant in English.

D. Winter, Assistant in English.

G. R. Noyes, Instructor in English and Russian.

J. C. Merriam, Assistant Professor of Palæontology and Historical Geology.

C. R. Keyes, Instructor in German.

M. Centner, Instructor in German.

J. T. Allen, Instructor in Greek and Classical Archæology.

K. C. Babcock, Assistant Professor of History and Political Science.

T. W. Page, Assistant Professor of History and Economics.

W. S. Ferguson, Instructor in Grecian and Roman History.

G. B. Wakeman, Instructor in History.

Lincoln Hutchinson, Instructor in Commercial Geography.

James M. Wilson, Assistant Professor of Irrigation.

G. H. Boke, Instructor in Jurisprudence.

W. H. Gorrill, Instructor in Law.

Warren Olney, Jr., Lecturer in Law.

W. B. Bosley, Lecturer in Law.

L. T. Hengstler, Lecturer in Law.

L. J. Richardson, Assistant Professor of Latin.

Stanley Simonds, Instructor in Latin.

H. C. Nutting, Instructor in Latin.

H. M. Hopkins, Instructor in Latin.

A. B. Pierce, Instructor in Mathematics.

A. W. Wilczynski, Instructor in Mathematics.

D. N. Lehmer, Instructor in Mathematics.

E. M. Blake, Instructor in Mathematics.

C. A. Noble, Instructor in Mathematics.

F. G. Hesse, Professor of Hydraulics.

C. L. Cory, Professor of Electrical Engineering.

J. N. Le Conte, Instructor in Mechanical Engineering.

W. A. Lynn, Instructor in Electrical Engineering.

J. D. Mortimer, Assistant in Electrical Engineering.

G. E. Cox, Assistant in Mechanics and Mechanician.

Ira Currier, Engineer and Electrician.

W. H. Lozier, Fireman.

F. C. Calkins, Assistant in Geology.

A. S. Eakle, Instructor in Mineralogy.

E. A. Hersam, Assistant Professor of Metallurgy.

W. S. Morley, Instructor in Assaying and Mill Assistant.

W. H. Hilton, Assistant in Assaying.

- 1901—April 19—Frank Richards, Helper in Mining Department.
 W. N. Fong, Chinese Assistant.
 Y. Kuno, Japanese Assistant.
 E. B. Dresslar, Assistant Professor of the Science and Art of Teaching.
 E. C. Moore, Instructor in Education.
 T. L. Heaton, Assistant in Education.
 W. P. Montague, Instructor in Logic and the Theory of Knowledge.
 H. A. Overstreet, Instructor in Philosophy.
 Knight Dunlap, Assistant in Psychological Laboratory.
 G. F. Reinhardt, Instructor in Physical Culture.
 Genevra E. Magee, Assistant in Physical Culture.
 W. J. Raymond, Assistant Professor of Physics.
 E. P. Lewis, Assistant Professor of Physics.
 E. R. Drew, Instructor in Physics.
 W. R. Stamper, Mechanician.
 A. Incell, Assistant in Physics.
 W. T. Skilling, Assistant in Physics.
 A. S. King, Assistant in Physics.
 W. A. Sheldon, Assistant in Physics.
 C. H. Howard, Instructor in French.
 G. E. Faucheux, Instructor in French.
 S. A. Chambers, Instructor in French.
 F. H. Bartlett, Assistant in French.
 C. A. Kofoed, Assistant Professor of Histology and Embryology.
 F. W. Bancroft, Instructor in Physiology.
 H. B. Torrey, Instructor in Zoölogy.
 Percy Walker, Master Bricklaying and Plastering Department of the Wilmerding School.
 Geo. F. Wood, Master Plumbing and Tool-Grinding, Wilmerding School.
 W. F. Belfrage, Instructor in Mathematics, Wilmerding School.
- April 24—C. D. Perrine, Assistant Astronomer at the Lick Observatory.
 R. H. Curtiss, Fellow at the Lick Observatory.
 C. G. Dall, Fellow at the Lick Observatory.
 H. K. Palmer, Fellow at the Lick Observatory.
 H. M. Reese, Assistant in Astronomy at the Lick Observatory.
- May 14—Dr. Hugo Karl Schilling, Professor of the German Language and Literature and Head of the German Department.
 Joseph E. Brand, Assistant in the Psychological Laboratory.
- June 28—F. W. Topken, Instrument-maker at the Lick Observatory.
 Joel Stebbins, Fellow at the Lick Observatory.
 Archibald R. Ward, Veterinarian, Department of Dairy Husbandry.
 Dr. H. C. Biddle, Instructor in Chemistry.
 Dr. William Conger Morgan, Instructor in Chemistry.
 Dr. Geo. K. Burgess, Instructor in Physics.
 Dr. C. E. Magnusson, Assistant in Physics.
 Albert R. Hager, Assistant in Physics.
 Charles Curtis Major, Instructor in Mechanical Engineering.
 Chauncey W. Wells, Assistant Professor of English Composition.
 Dr. H. W. Prescott, Instructor in Latin.
 Dr. Gaillard Thomas Lapsley, Instructor in History.
 G. H. G. McGrew, Clerk in Recorder's Office.
 Dr. Joseph Marshall Flint, Professor of Anatomy.

Secretary of War Requested to Detail Lieutenant Waite as Instructor of Military Science and Tactics.

President Wheeler submitted the following:

I recommend that First Lieutenant Henry De H. Waite, U. S. A., be appointed Professor of Military Science and Tactics from July 1, 1900.

On motion, President Wheeler was authorized to make application to the Secretary of War for the detail of Lieutenant H. De H. Waite as Instructor of Military Science and Tactics at the University of California. [July 24, 1900.]

Appointment of a Reader in History.

President Wheeler submitted the following recommendation:

That a Reader in History be appointed with a salary of \$30 per month from January 15, 1901, to May 15, 1901, and that the matter be referred to the Finance Committee with power.

On motion, the rules were suspended and the recommendation concurred in, on a call of the ayes and noes. [December 11, 1900.]

Head of Department of Education.

President Wheeler recommended the adoption of the following:

Resolved, That leave of absence for one year having been granted to Dr. Elmer E. Brown, the Board of Regents, in session this 28th day of June, 1901, do designate and elect for the head of the Department of Education or Pedagogy, for the period of one year from July 1, 1901, Dr. F. B. Dresslar.

[Adopted, June 28, 1901.]

RESIGNATIONS.

W. S. T. Smith, Assistant in Mineralogy. [Accepted, July 24, 1900.]

D. A. McRae, Reader in Greek. [Accepted, July 24, 1900.]

C. Hadley Carlson, Associate Professor of Physiology, Toxicology, and Urinalysis in College of Pharmacy. [Accepted, July 24, 1900.]

Arnold V. Stubenrauch, Clerk to the Director of Agricultural Experiment Stations. [Accepted, September 12, 1900.]

S. W. Hemenway, Instructor in Mechanical and Architectural Drawing in the Wilmerding School. [Accepted, September 12, 1900.]

S. C. Phipps, Assistant in Astronomy. [Accepted, September 12, 1900.]

E. F. Coddington, Fellow in Astronomy at the Lick Observatory. [Accepted, September 12, 1900.]

F. Cuttle, Assistant in Chemistry. [Accepted, September 18, 1900.]

W. A. Weslar, Assistant in Chemistry. [Accepted, September 18, 1900.]

George J. Young, Analytical Assistant in Mining. [Accepted, September 18, 1900.]

W. D. Craig, Assistant in Chemistry. [Accepted, December 11, 1900.]

G. W. Beattie, Reader in Chemistry. [Accepted, December 11, 1900.]

Marian Adams, Instructor in History in the Wilmerding School. [Accepted, December 11, 1900.]

Arthur C. Babson, Assistant in Electrical Engineering. [Accepted, March 12, 1901.]

Knight Dunlap, Assistant in the Psychological Laboratory. [Accepted, May 14, 1901.]

C. G. Dall, Fellow at the Lick Observatory. [Accepted, June 28, 1901.]

LEAVES OF ABSENCE.

1900—July 24—C. C. Plehn, Associate Professor of Finance, for one year from July 1, 1900, without pay.

Sept. 12—J. Hatfield Gray, Instructor in Chemistry, until further report by the President, without pay.

1901—Mar. 12—Bernard Moses, Professor of History and Political Economy, for academic year 1901-2, without pay.

- 1901—April 19—W. B. Rising, Professor of Chemistry, for the year 1901-2, on two-thirds pay.
 Elmer E. Brown, Professor of the Theory and Practice of Education, for the year 1901-2, on full pay.
 C. B. Bradley, Professor of Rhetoric, for the year 1901-2, on two-thirds pay.
 Miss Fannie S. Bonté, Assistant in the Library, from May 16 to August 1, 1901, on full pay.
 Lincoln Hutchinson, Instructor in Economics, from April 20 to May 15, 1901, on full pay.

Leave of Absence to Regent Houghton.

Regent Houghton requested a leave of absence, as he expected to leave the State for a few months.

On motion, Regent Houghton was granted leave of absence for six months. [April 19, 1901.]

SCHOLARSHIPS, 1901-2.

Awards of Undergraduate Scholarships for 1901-2.

President Wheeler submitted the report of the Academic Council in the matter of undergraduate scholarships for 1901-2:

PHOEBE HEARST SCHOLARS.

*Mary Hannah Cross	Junior, Social Sciences	Saratoga.
*Ruby Lacey Cunningham	Junior, Chemistry	San Bernardino.
*Sally Agnes Dexter	Senior, Social Sciences	Little Shasta.
Katherine Stewart Hannah	Junior, Social Sciences	Tacoma, Wash.
*Elizabeth Adelaide Herrmann	Senior, Letters	Berkeley.
*Rose Humann	Junior, Social Sciences	Santa Rosa.
Grace Emily Moody	Junior, Natural Sciences	Long Beach.
Rose Moskowitz	Sophomore, Letters	San Luis Obispo.

STATE OF CALIFORNIA SCHOLARS.

FIRST CONGRESSIONAL DISTRICT.

*William Burt Albertson	Senior, Mining	Buckeye.
Henry Hans Matthiesen	Freshman, Mechanics	You Bet.
Ernest Everett Wood	Sophomore, Social Sciences	Auburn.

SECOND CONGRESSIONAL DISTRICT.

Rena Mae Dartt	Sophomore, Social Sciences	Mendocino City.
*Louis Albert Elmore	Junior, Letters	Santa Rosa.
*Beatrice Urania Hagmayer	Senior, Social Sciences	Cloverdale.
Walter Leroy Huber	Freshman, Civil Engineering	Grafton.

THIRD CONGRESSIONAL DISTRICT.

*Fannie H. Avery	Senior, Natural Sciences	Berkeley.
*John Morton Eshleman	Senior, Letters	Berkeley.
*Nina Melissa Farwell	Senior, Letters	Berkeley.

*Re-appointed.

FOURTH AND FIFTH CONGRESSIONAL DISTRICTS (TOGETHER).

*William John Allen	Junior, Social Sciences	Fifth District, Palo Alto.
*Ella Gertrude Cook	Junior, Social Sciences	Fifth District, Campbell.
*Ellen McKay Hensell	Senior, Letters	Fourth District, San Francisco.
J. Shirley Jones	Junior, Agriculture	Fifth District, San José.
Albert Henry Mowbray	Sophomore, Letters	Fourth District, San Francisco.
Annie Silverberg	Junior, Social Sciences	Fourth District, San Francisco.
*James Hugh Wise	Junior, Mining	Fifth District, San Francisco.

SIXTH CONGRESSIONAL DISTRICT.

Katherine Florence Magnuson	Sophomore, Chemistry	Livingston.
Caroline Alden Nash	Junior, Social Sciences	Hollister.
Effie Josephine Rigden	Freshman, Social Sciences	Santa Cruz.
*Elizabeth Smith Wetmore	Sophomore, Social Sciences	Stockton.

SEVENTH CONGRESSIONAL DISTRICT.

Nathaniel Nelson Eddy	Freshman, Mining	Avalon.
Ethel Blaine Magee	Sophomore, Social Sciences	Los Angeles.
Grace Bell Swain	Junior, Letters	Acton.
*Helen Sarah Watson	Senior, Social Sciences	Colgrove.

EIGHTH CONGRESSIONAL DISTRICT.

Ethel Carter	Freshman, Social Sciences	Wasco.
*Clinton Kelly Judy	Junior, Letters	Hemet.
Earl Hamilton McCollister	Junior, Social Sciences	Santa Barbara.

LEVI STRAUSS SCHOLARS.

FIRST CONGRESSIONAL DISTRICT.

Mary Helen Campbell	Freshman, Natural Sciences	Arcata.
*Mabel Elizabeth Coddington	Sophomore, Social Sciences	Auburn.
Henry Bert Glover	Freshman, Letters	Corning.
William Eugene Yocom	Sophomore, Mechanics	Blue Lake.

SECOND CONGRESSIONAL DISTRICT.

Nellie Frances King	Senior, Natural Sciences	Santa Rosa.
*John Joseph Mazza	Junior, Social Sciences	Nicasio.
Mary Leona Poage	Senior, Social Sciences	Ukiah.

THIRD CONGRESSIONAL DISTRICT.

*Fred Field Goodsell	Senior, Letters	Byron.
Cora Elizabeth Hampel	Sophomore, Letters	Oakland.
*Florence Trebitt Hudson	Senior, Letters	Niles.
*James Mossin Koford	Junior, Social Sciences	Vacaville.

FOURTH AND FIFTH CONGRESSIONAL DISTRICTS (TOGETHER).

*Flora Adelina Domenica Ba-		
cigalupi	Senior, Letters	Fourth District, San Francisco.
*Edward Gustave Cahill	Junior, Mining	Fifth District, San Francisco.
*Monroe Emanuel Deutsch	Senior, Letters	Fourth District, San Francisco.
*Anna Herkner	Sophomore, Natural Sciences	Fifth District, San José.
Reginald Heber Kelley	Senior, Letters	Fourth District, San Francisco.
Leslie Wrightson Stocker	Sophomore, Mechanics	Fifth District, San Francisco.
Ralph Watts Wardwell	Sophomore, Mechanics	Fourth District, San Francisco.

* Re-appointed.

SIXTH CONGRESSIONAL DISTRICT.

Ethel Bartlett	Junior, Social Sciences	Santa Cruz.
Evie Myrtle Gilbert	Junior, Social Sciences	Oakdale.
*Martha Elizabeth Miller	Junior, Social Sciences	Stockton.

SEVENTH CONGRESSIONAL DISTRICT.

Everett Eugene Adams	Sophomore, Civil Engineering	Los Angeles.
Judson Raymond Carter	Senior, Letters	Pasadena.
*Rachel Laurena Steele	Junior, Social Sciences	Compton.

EIGHTH CONGRESSIONAL DISTRICT.

*John Marks Brewer	Senior, Natural Sciences	San Diego.
Ralph Oliver Reiner	Sophomore, Letters	Riverside.
George Maxfield Sheldon	Sophomore, Chemistry	Anaheim.
Avis K. Smith	Freshman, Letters	San Luis Obispo.

[Approved, May 14, 1901.]

Ralph C. Daniels Scholarship.

President Wheeler reported as follows: I have a great deal of pleasure in presenting the following communication from R. C. Daniels, formerly a holder of one of our scholarships:

While a student at the University of California in the Class of '99, I was the recipient of a State of California Scholarship for twelve months, from August, 1897, to September, 1898, both inclusive. The money thus received by me, amounting to \$150, was of great assistance at the time, but I always regarded it as a loan from the University, not a gift, and being now in a position to repay this loan, I desire to do so.

If agreeable to yourself and to the Board of Regents, I would venture to suggest that this sum of \$150 might be offered as a special one-year State of California Scholarship to some worthy student. This, of course, is merely a suggestion, and I desire the money to be entirely at the disposal of the proper authority.

If you will advise me at your convenience of the acceptability of my offer, and of the form in which it may be most conveniently paid over to the proper authority, I shall esteem it a favor.

I move that the money be accepted, and that there be established for one year the Ralph C. Daniels Scholarship, to be given as other scholarships are awarded. [Carried.]

I move that a vote of thanks be extended to Mr. Daniels for his gift. [Carried, October 9, 1900.]

Yale Alumni Association Fellowship.

President Wheeler recommended a vote of thanks be given to the Yale Alumni Association of California for its establishment of a Graduate Fellowship at Yale, to be held each year by an alumnus of the University of California or of Stanford University, awarded for the coming year to Harold C. Bradley, who graduated last spring from the College of Letters of this University. [Concurred in, March 12, 1901.]

*Re-appointed.

DEGREES CONFERRED BY THE BOARD OF REGENTS.

July 24, 1900, the Degree of Doctor of Medicine upon
 Clyde Briggs Laughlin. Manuel Fernandez.

December 27, 1900, the Degree of Bachelor of Letters upon
 Robert Belcher. Dolores Eleuteria Machado.
 George Otto Brehm. Margaret McLeod.
 Adrienne Cerf. Henry Clinton Melone.
 Benjamin Franklin Driver. Clelia Augusta Paroni.
 Karl Henrich. Olive Lord Taylor.
 Virginia Nason Klenck (Ph.B. '98). Grace Abbie Tyrrell.
 Edward Gerhart Kuster.

December 27, 1900, the Degree of Bachelor of Arts upon
 Alice Linscott Freese. Margaret McCowan (A.B., Iowa Col-
 Myrtle Jeannette Joseph. lege, 1890).
 Mabel Earle Kelsey. Flora Wilson.
 Thomas Drummond Mansfield.

December 27, 1900, the Degree of Bachelor of Philosophy upon
 Joseph Everett Brand. Franklin Porter Nutting.
 Carl Sophus Hansen.

December 27, 1900, the Degree of Master of Science upon
 Alexander Sanford Moss, B.S.

December 27, 1900, the Degree of Bachelor of Science upon
 Helen Louise Emilie Arents. Kurt Schluss.
 Paul Castelhun. Ralph Stuart Browne.
 Leo Eloesser, Jr. Aloysius Paul Mallon.
 Samuel Philip Maybach. Vance Craigmiles Osmont.
 Marion Michener. George Walter Monroe.

May 14, 1901, the Degree of Bachelor of Arts upon
 Hilda Abraham. Anita Giles Hubbard.
 Annie Harriet Allen. Corinne Hutton.
 Lucile H. Bailey. Martha Adelaide Ijams.
 Walter Burling Bakewell. Katherine Courtenay Johnston.
 James Clark Blair. Winthrop Leicester Keep.
 Vivian Beatrice Bryan. Louise Kellogg.
 Franklin Underwood Bugbee. Elizabeth Keyser.
 Jessie Ellsworth Burnett, A.B. Helen Louise Martin.
 Blanche Maple Clark. Stuart Galbraith Masters.
 Walter Everett Conlin. Herbert Turbitt Moore.
 Cornelius George Dall. Nathan Montgomery Moran.
 George Nelson Didion. Minna Helen Nelson.
 Jeannette Ellison, A.B. Emma Estella Parker, A.B.
 Grace Emily Hazleton Fish. Clara Christine Piper.
 Ralph Talcott Fisher. Florence Mabel Preble.
 Mary Theresa Gallagher. Fannie May Sanborn.
 Frank George Goodenow. Mary Southern Shreve.
 Arthur William Goodfellow. Elizabeth Jackson Skinner.
 Eily Mahoney Grosjean. Irene Taylor.
 John Emanuel Gustafson. Edith Grace Thatcher.
 Fred Beckman Hart. Lillian Claire Versalovich.
 Catharine Hirstel. Louise Hinkley Whitehead.
 Wesley Newcomb Hohfeld. Miriam May Wollner.
 Florence Edna Hoyt. Alice Bowman Wright.

May 14, 1901, the Degree of Bachelor of Letters upon

Jewel Alexander.	Anne Lucia Holmes.
Elizabeth Arlett.	Helen Lemoyne Hoose, Ph.B.
Florence Eunice Barnard.	Harriet Hoppin.
George R. Bartlett.	Frank Evans Howard.
Theobald Percy Bayer.	Alice Orne Hunt.
Ida Body.	Hattie Handal Jacobs.
Jessie Bohall.	May Belle Johnson.
Brownie Brownell.	Clare Jones.
Thomas Fairchild Brownscombe, M.A.	Almira Jane Kelshaw.
Ella May Bunnell.	Edith Mabel Kendall.
John Winchell Spencer Butler.	Edith Rosine Kurtz.
Cora Belle Campbell.	Katharine Maloy Layne.
Carl Laurence Carlson.	Elizabeth Eloise Ledgett.
Ethel Beaver Catton.	Harley Marion Leete.
Lillian Gertrude Chace.	Hugh McCaskey Love.
Antoinette Clemence Cheyret.	* Dolores Elenteria Machado.
Madeline Veronica Christy.	Harry Ellis Magee.
Helen Elizabeth Clapp, B.L.	George Peabody Manchester.
Amelia Ynez Coeke.	Francis Freeman Marshall.
Charles Matthew Coleman.	Ethel Genevieve Marston.
Charles Maxwell Colton.	Martha Jane McDill.
Mary Sara Cooper.	Edna May McKee.
Edith Pearl Cox.	Lucius Dean McKinley.
Josephine Devine.	Nettie Meek.
Lou Irene DeYo.	Vincenza Catherine Milledge.
Edward Augustus Dickson.	Mary Grace Miller.
Margaret Elizabeth Doherty.	Florence Etta Montgomery.
Louis Fred Dreher.	Ida Cornelia Moody.
Boutwell Dunlap.	Stanley Moore.
Lillian May Durkee.	Ruby Rose Morse.
Muriel Eastman.	Edna Murdock.
Elizabeth Eby.	Charlotte Elizabeth Neale.
Guy Walton Eddy.	Oney McCutchan Nicely.
Clarence William Edwards.	William Horsely Orrick.
Thomas Henry Emerson.	James Orland Osborn.
Claribel Ensign.	Edna Tulloch Owen.
Edward Thomas Ford.	Albert Wentworth Palmer.
Lilia Gertrude Forderer.	Gay Willis Parsons.
Maude Malcolm Fraser.	Eva Powell.
Agnes Frisius.	Maude Harriet Powell.
Edith Edna Gaddis.	Edward Augustus Powers.
Leland Isaac Gale.	Caroline May Pulcifer.
Leonora Gautier.	Ellen Kate Rea.
Mabel Emma Gilson.	Estelle Grace Roblin.
Margella Catherine Glazier.	Eugene Wellington Roland.
Isabel Blanchard Godin.	Evangeline Sale.
Demetrius Alexander Gordenker.	Milton Harry Schwartz.
Elisabeth Goyne.	Elizabeth Mitchell Scupham.
Ruby Estelle Gracier.	William James Shaw.
Ulrich Graff.	Paul Ainsley Sinsheimer.
May Bess Graham.	Marion Cummings Stanley.
May Ellenor A. Gray.	Jesse Henry Steinhart.
William Buckhout Greeley.	Theresa Viola Stoer.
Laurence Lincoln Greene.	Fanny May Strong.
Margella Gunning.	Amy Tabrett.
Margaret Frances Hill.	Helena Pearl Thomas.
Sophia Adelaide Hobe.	Mabel Winifred Thomas.

May 14, 1901, the Degree of Bachelor of Letters upon

Margaret Troili.	Howard Collins White.
Richard Walton Tully.	Ellen Wilkinson.
Amy Gertrude Van Deerlin.	Mabel Lucinda Williams.
Anna Frances White.	Andrew McLellan Wolfenden.

May 14, 1901, the Degree of Bachelor of Philosophy upon

Margaretta Louise Thornton.

May 14, 1901, the Degree of Bachelor of Science upon

Edgar William Alexander.	Frederick Laist.
Glenn Loring Allen.	Anna Morgan.
Coniah Leigh Bigelow.	Carl Schilling.
Harvey Monroe Hall.	Florence Margaret Scott.
Richard Warren Harvey.	Hiram Franklin Sheldon.

May 14, 1901, the Degree of Bachelor of Science upon

J. Shirley Bright.	Adolph Judell.
Walter Nettleton Frickstad.	

May 14, 1901, the Degree of Bachelor of Science upon

Harry Winter Bangle.	Henry Daggett Morse.
Edwin Lawrence Beck.	Horace Lankton Moulthrop.
Walter Wadsworth Bradley.	Arthur Charles Nahl.
Harry Louis Cornish.	Warren Vincent Richardson.
Ivan DeLashmutt.	William Beaumont Shaw.
Carlos Parker Griffin.	Paul Selby.
Melvin Scribner Griffiths.	Howard Dunbar Smith.
Jack Dietrich Hoffmann.	Richard Charles Specht.
Lee Sylvester Kerfoot.	Elry Jay Wagon.
Edwin Ralph Leach.	Otto Charles Zinns.

May 14, 1901, the Degree of Bachelor of Science upon

Harley Sargent Britt.	Walter Samuel Sessions.
Oscar Frederick Kern.	John Stanislaus Soares.
Frank Walter Kerns.	Taichi Tanabe.
Paul Lebenbaum.	Edward George Thunen.
Claude Wilson Place.	Edward Ingram Titlow.
Charles Robert Sessions.	

May 14, 1901, the Degree of Bachelor of Science upon

Julia Roselle Pearce, B.S.	Mooshegh Vaygouny.
----------------------------	--------------------

May 14, 1901, the Degree of Bachelor of Science upon

Benton Alvin Hammond.

May 14, 1901, the Degree of Bachelor of Science upon

Minnie Beatrice Bannon.	Rachel Kurlandzik.
May Alice Bowcher.	Benjamin Overfield Lacey.
Ralph Hamilton Curtiss.	Elisabeth Henrietta Lehr.
Margaret Maria Fee.	Genevieve Savage Manchester.
Margaret Fortier.	Evelyn Marianne Ratcliff.
Joseph LeConte Goldsmith.	Otto Paul Rathke.
Hephzibah Elizabeth Green.	Lionel Samuel Schmitt.
Elias Marcus Hecht.	Mary Winifred Tyrrell.

May 14, 1901, the Degree of Doctor of Philosophy upon

Russell Tracy Crawford.	Frank Elmore Ross.
-------------------------	--------------------

May 14, 1901, the Degree of Master of Arts upon

Louise Crennell Callow, M.A. (Western Reserve University).	William Inch, A.B. (University of Southern California).
David Raymond Curtiss, A.B.	Ivan Mortimer Linforth, A.B.
Richard Lenox Halsey, A.B.	Francis Robert Morrison, A.B.
Lalla Fowler Harris, A.B.	Helen Wooster Peckham, A.B. (Vassar College).

May 14, 1901, the Degree of Master of Letters upon

Adeline Belle Croyland, B.L.	Fanny Eliza Snell, B.S. (Carleton College).
Mabel Hall Jacobs, Ph.B.	

May 14, 1901, the Degree of Master of Science upon

Gulielma Ruth Crocker, A.B.	George William Beattie, B.S.
Katherine Matthews Crusoe, B.S.	William Thompson Skilling, B.S.
Arthur Scott King, B.S.	

May 14, 1901, the Degree of Bachelor of Law upon

Thomas Dickey Aitken.	Perry Evans, B.L.
Phil Brent Arnold, Ph.B.	George Franklin Gill.
James Hall Bishop.	Alfred Ephraim Goldsten.
Thomas Porter Bishop, Ph.B.	Frank James Hennessy, A.B.
Hugh Barr Bradford, B.L.	Guy Hinton, M.A.
William Aloysius Breen, A.B.	Roy Gage Hudson.
Everett John Brown, Ph.B.	John Louis Armand Jaunet, A.B.
John Quincy Brown, Ph.B.	Edwin McMurray.
Charles Marcellus Bufford, M.A.	James Diven Meredith.
John James Callaghan.	Charles Louis Neumiller.
Charles Strother Chandler, A.B.	Hartley Fiske Peart, B.L.
Allen Lawrence Chickering, A.B.	Frank Edward Powers.
Herbert Eugene Clayburgh, Ph.B.	Maggie Adelia Ross, B.S.
Edward Ignatius Coffey.	Harry Francis Sullivan.
Samuel Milton Crim.	Lawrence Talcott Wagner, A.B.
Oliver Dibble, Ph.B.	George Erastus Weaver.
Marie Cecelia Dillon.	William Joseph Weyand.
John Wilson Douglass.	Brooke Maynard Wright.
Dennis Maxwell Duffy, A.B.	Handel Hart Zobel.
William Ede, A.B.	

May 14, 1901, the Degree of Doctor of Medicine upon

Edgar Allen Arthur.	Frederic Lincoln Morong.
Wilfred Fenton Beerman, Ph.G.	William James Murphy.
Kate Isabel Brady, A.B.	George Philip Purlenky, Ph.G.
Walter Murray Dickie, Ph.B.	Fletcher Greene Sanborn.
Ralph Orlando Dresser.	Lionel Samuel Schmitt.
John Nivison Force, B.S.	James Walter Seawell.
Harold Phillips Hill, A.B.	Haydn Mozart Simmons, Ph.G.
Reuben Chandler Hill.	Hudson Smythe.
Mary Frances Kavanagh.	George William Sweetser, Ph.G.
Milton Byrne Lennon, M.A.	Benjamin Thomas, M.A.
John Vaughan Leonard.	Joseph Michael Toner.
William Kinkade Lindsay.	John Lysander White.
Rasmus Hansen Madsen, A.B.	Chester Howard Woolsey, B.S.
Florence McCoy, B.S.	Una Yone Yanagisawa, B.L.

*May 14, 1901, the Degree of Doctor of Veterinary Science upon
George John Donnelly.*

May 14, 1901, the Degree of Graduate in Pharmacy upon

Marquis de Lafayette Barrett.	Herman Kronenberg.
Harry Irving Blackman.	Emile Theodore Lacoste.
John Marvin Booher.	Elmer Baker Maze.
Arthur Brett Clapp.	Laura Alice McCord.
Philip Scott Clapp.	Herbert Leslie McDonnell.
William Henry Dunlap.	Thomas Talbot McGuire.
Orin Eastland.	Edward McKinlay.
Oscar Harrison Edinger.	Frederick William Nish.
Fred Chester Englesby.	George McCamley Oswill.
John William Joseph Enright.	Waldemar Bruce Philip.
Theodore Emmet Farrell.	Robert Courtland Ramage.
Francis Xavier Fleming.	Stanley Herbert Robbins.
Clark Merrill Foote.	Albert Frank Sidney Schmidt.
John Henry Franklin.	John Pitt Taggart.
Gustave Adolph Griesche.	Jackson Temple, Jr.
Fayette Harris.	Thomas Dollard Trueworthy.
John Dante Illia.	Robert Greenleaf Whitlock.
John Carpenter James.	Maurice John Zimelli.
Charles Laux Kitzmeyer.	

May 14, 1901, the Degree of Doctor of Dental Surgery upon

George Smythe Aiken.	Henry Burton Knox.
Domenico Antonio Alberti.	Leo Valentine Levinger.
Charles Stuart Ayres.	Walter French Lillard.
Adolph Baer, B.L., B.S.	James Albert Lindsay.
Julius Baer.	Edwin Henry Mauk.
Thomas Ira Cook Barr.	James McGough.
John Clifford Baxter.	John Fred Orville McMath.
Edward Lee Betterton.	Guy Stillman Millberry.
Samuel Daniel Block.	Joseph Franc Novitzky.
Ralph Ellis Burns.	Edward William O'Brien.
Joseph Anthony Carew.	Eugene DeShong Painter.
Jesse Chilton.	Percy Stuart Regnart.
George Samuel Conner.	Edward Jack Rinckel.
Archibald Younger Dick.	Guy Rogers.
James Severino Domeniconi.	Ralph Bartholomew Scheier.
Martin Espinosa.	Frank William Seydel.
Percy De Witt Gaskill.	William Shepard.
Harry Everett Gates.	Fred James Seiferd.
Maurice Louis Green.	Frederick William Stapff.
Adolph K. Harshall.	Henry Stuart Stern.
Horace Noble Henderson.	John Lyons Sullivan.
Elwood Fairbairn Herbert.	Anna Christina Frank Wagner.
Oliver Joseph Howard.	Chapman M. White, Jr.
Anna Lee Hudgens.	Jay Fremont Wilson.
Walter Ernest Janke.	Roy Irving Woolsey.
Charles Henry Jurgens.	

*May 14, 1901, the Degree of Doctor of Laws upon
William McKinley, President of the United States.*

MILITARY COMMISSIONS.**Officers of University Cadets.**

The following-named were commissioned by Governor Gage, May, 1901:

First Lieutenants:

Donald Thompson Baker.	Warren Vincent Richardson.
Johann Friederich Erdmann Clewe.	Walter Nettleton Frickstad.
Frank Evans Howard.	Laurence Lincoln Greene.
Otto Paul Rathke.	Carl Schilling.
Courtney L. Barham.	Frank Lennen Mulgrew.
Franklin Underwood Bugbee.	

Captains:

Richard Warren Harvey.	Edgar William Alexander.
Benton Alvin Hammond.	William Buckhout Greeley.
Frank George Goodenow.	Ralph Hamilton Curtiss.
John Winchel Spencer Butler.	Henry Clinton Melone.
Carl Laurence Carlson.	Eugene Wellington Roland.
Walter Wadsworth Bradley.	Elry Jay Wager.
James Orland Osborn.	Cornelius George Dall.
Samuel Centennial Faneuf.	Walter Everett Conlin.
John Emanuel Gustafson.	Jack Dietrich Hoffmann.

Majors.

Ralph Talcott Fisher.	Glenn Loring Allen.
Nathan Montgomery Moran.	

Lieutenant-Colonel:

Walter Burling Bakewell.

Colonel:

Charles William McConaughy.

WILMERDING SCHOOL OF INDUSTRIAL ARTS.**Appointment of a Director.**

President Wheeler reported as follows:

As suggested in the report of the Committee on Wilmerding School, I beg to present a plan for the future management of the Wilmerding School which will bring it in accord with the Lick School. It is believed, I think, to be highly desirable that the schools should work hand in hand, that one should pay attention to the building trades, and the other, the Lick School, to the mechanical trades. In conference with the Trustees of the Lick School, our committee has reached a very fortunate understanding whereby we agree to share the services of the present Principal of the Lick School, Mr. George A. Merrill, and each board to appoint a vice-principal under Mr. Merrill in each school. I therefore recommend that Mr. George A. Merrill be appointed Director of the Wilmerding School of Industrial Arts, with salary of \$1,800 per year, to date from March 15, 1901.

[Concurred in, on a call of the ayes and noes, March 12, 1901.]

Report on Condition of Funds.

The Committee on Wilmerding School submitted the following:

By the death, in November last, of Everett Schwartz, late Director of the Wilmerding School, your committee, having charge of that institution, believes it to be its duty to make the following report of the manner in which the trust, confided to the Board of Regents by Mr. Wilmerding, has been administered.

Mr. J. Clute Wilmerding, a prosperous and generous merchant of San Francisco, died on the 20th day of February, 1894, and in his will bequeathed to the Board of Regents of the University of California \$400,000 "to establish and maintain a school, to be called 'The Wilmerding School of Industrial Arts,' to teach boys trades, fitting them to make their living with their hands, with little study and plenty of work."

The full amount of \$400,000 was paid over by active executors, William Alvord and Thomas J. Lamb, to the Board of Regents, in August, 1895, and as fast as ample security offered, was put out at interest.

The Board of Regents, desiring to make no mistakes at the start, proceeded with much deliberation, and it was not until December, 1898, that Mr. Schwartz took charge of the school as Director.

January 8, 1900, it opened with seventy-six pupils on the roll, increased to one hundred and twenty-five at the date of this report; meanwhile from the accumulations of interest solely, we were enabled to purchase a full block of land bounded by Sixteenth and Seventeenth, Utah and Nebraska streets, 200 x 400 feet, which

cost	\$22,634 10
On which we built a substantial wooden structure, 60 x 160 feet, three stories in height, at a cost of.....	20,344 00
And equipped it for the various trades at a cost of.....	16,000 00
And on January 1, 1901, had loans in excess of \$400,000, amounting to.....	34,000 00
And cash on hand at the last-named date.....	6,901 76
	<hr/>
	\$99,879 86

From the above figures it will be seen that from the accumulations of interest we have bought the block, built the building, equipped it for the modern trades, and have on hand in mortgages and cash \$40,901.76 more than the original bequest.

The annual income from our invested funds is about \$27,000, and the annual expense, including salaries and incidentals, is about \$20,400.

From this it will be seen that the expenditures are being kept well within the income, leaving ample funds for contemplated and necessary expansion. Nearly all the modern trades, in addition to a continuation of the grammar school requirements for entering, are taught by competent teachers, so that upon graduation the pupils go out with a good education, in addition to a full equipment for the special trade in which they have served their time.

In addition to the block which the Board of Regents purchased, and on which the school building was erected, they own another block, 200 x 400 feet, bounded by Seventeenth, Eighteenth, Rhode Island, and Kansas streets (only two blocks removed from the school), purchased by friends at a cost of about \$20,000, and presented to the Board of Regents.

It is contemplated, some time in the future, from the accumulations of interest and possible sale of the donated block, to erect on our Sixteenth Street front, directly opposite the Lick School, a permanent, nearly fire-proof brick structure about 200 x 60 feet, to be as nearly as possible the handiwork of the pupils.

The above your committee believes shows a substantial compliance, on the part of the Board of Regents, with the wishes of the generous donor as expressed in his will.

Your committee, after due consideration and full conference with President Wheeler, has arranged for the future management of the school and the selection of a Director in the place of the late Director Schwartz, which will be presented to you by the President and of which plan we desire your approval.

[Received and ordered spread in full upon the minutes of the Board, March 12, 1901.]

New Building for the School.

The Committee on Wilmerding School reported as follows:

Your Committee on Wilmerding School submits herewith plans prepared by Director George A. Merrill for a new building for the Wilmerding School, to be constructed by the students in the school under the direction of the shop instructors. We have approved these plans, and therefore recommend them to the Board.

If built by contract, the cost of labor and materials for this building would be about \$60,000. The cost of materials alone is estimated at about \$40,000. It is the intention of the committee not to use any of the principal of the Wilmerding Fund for the building, but only so much of the income as is in excess of the amount used for current expenses and salaries for each year. Mr. Merrill states that it will take from three to five years to build. With this in view, we recommend the following appropriation from an estimated surplus for the ensuing year of \$6,900.

First: \$500 for grading the school lot.

Second: \$750 for building a rubble wall across the lot and facing the same with brick.

Third: \$3,000 for the erection of a blacksmith-shop and adjoining wall of the main building.

[Concurred in, on a call of the ayes and noes, May 14, 1901.]

BUDGET.

The Finance Committee submitted the following, the President stating that his recommendations as to amounts and names were incorporated therein:

ESTIMATED INCOME FOR THE YEAR ENDING JUNE 30, 1902.

Interest on State bonds	\$45,060 00	
Interest on S. F. Park Improvement bonds	60 00	
		\$45,120 00
Interest on Diverted Funds		4,785 00
Interest on mortgages (less Turner)		72,237 16
Interest on Bear Gulch Water Co. bonds		4,697 54
Income from Johnson Building	\$24,000 00	
Income from Sacramento Building	12,600 00	
		36,600 00
Rent of cottages, \$1,296; Palmer House, \$600		1,896 00
Students' deposits		12,000 00
State University Fund, 2 cent tax		240,000 00
Morrill College Aid Fund	\$25,000 00	
Agricultural Experiment Station Fund	15,000 00	
		40,000 00
Phoebe A. Hearst Scholarships	\$2,400 00	
Levi Strauss Scholarships	3,500 00	
		5,900 00
State appropriation		100,000 00
Jane K. Sather Library Fund interest		600 00
		\$563,835 70
<i>Less Special Funds—</i>		
J. Clute Wilmerding Fund	\$6,900 96	
Edward Tompkins Endowment	54 96	
Whiting Fund	1,399 92	
Walton Memorial Loan Fund	15 00	
P. Charles Cole Scholarship	69 96	
C. B. Houghton Scholarship	30 00	
Hermann Royer Endowment	107 76	
		8,578 56
		\$555,257 14
Less 2½% for contingencies		14,095 89
		<u>\$541,161 25</u>

SALARIES.

<i>Administration.</i>		<i>Increase.</i>	<i>New.</i>
Benj. Ide Wheeler.....	President.....	\$10,000 00	
W. A. McKowen.....	Acting Secretary and Land Agent.....	2,400 00	\$300 00
-----	Counsel for Board of Regents.....	2,400 00	
W. H. Phipps.....	Clerk.....	1,500 00	
H. L. Wright.....	Clerk.....	720 00	120 00
Rebecca Meyerstein.....	Stenographer.....	840 00	
J. J. Herr.....	Auditor.....	300 00	
James Sutton.....	Recorder.....	1,800 00	
V. H. Henderson.....	President's Secretary.....	1,200 00	200 00
May L. Cheney.....	Appointment Secretary.....	1,000 00	
James Carpenter.....	Janitor Mining Building.....	720 00	
A. A. Handle.....	Janitor Civil Engineering Building.....	720 00	
John Maisen.....	Janitor North Hall.....	720 00	
A. F. Eldridge.....	Janitor North Hall.....	720 00	
F. Sandow.....	Janitor South Hall.....	720 00	
R. Rowe.....	Janitor South Hall.....	720 00	
E. A. Bailey.....	Assistant Janitor South Hall.....	180 00	
T. R. Elliott.....	Janitor Gymnasium.....	720 00	
-----	Assistant Janitor Gymnasium.....	180 00	\$180 00
Robert Thomson.....	Janitor Agr. Exp. Sta. Building.....	720 00	
Robert Duggan.....	Janitor Chem. Lab. Building.....	720 00	
J. A. Madsen.....	Laboratory Mechanic.....	840 00	
A. D. White.....	Janitor Mech. and Elec. Building.....	720 00	
P. R. McCabe.....	Janitor Library Building.....	720 00	
-----	Assistant Janitor Library Building.....	360 00	360 00
T. H. Gilbert.....	Janitor Botany Building.....	720 00	
H. H. Woodruff.....	Janitor Philosophy Building.....	720 00	
F. S. Sanford.....	Janitor East Hall.....	720 00	
A. W. Miller.....	Assistant Janitor East Hall.....	360 00	
Samuel Edgar.....	Janitor Hearst Hall.....	720 00	720 00
J. Mitchell.....	Armorer.....	720 00	
D. W. Gilbert.....	Messenger.....	720 00	
George C. Boeddiker.....	Night Watchman.....	720 00	
R. Flint.....	Carpenter.....	900 00	
E. Ehret.....	Plumber.....	900 00	
		<u>\$38,840 00</u>	
<i>University Library.</i>			
J. C. Rowell.....	Librarian.....	\$2,400 00	
J. D. Layman.....	Assistant Librarian.....	1,600 00	100 00
Anna Fossler.....	Cataloguer.....	1,080 00	
-----	Cataloguer.....	600 00	600 00
Fannie S. Bonté.....	Assistant in Library.....	660 00	60 00
J. A. Rowell.....	Assistant in Library.....	480 00	
Amy L. Phelan.....	Assistant in Library.....	720 00	720 00
		<u>\$7,540 00</u>	
<i>University Printing Office.</i>			
J. W. Flinn.....	Superintendent.....	\$1,350 00	
J. J. Gillick.....	Assistant.....	600 00	120 00
		<u>\$1,950 00</u>	
<i>Department of Agriculture.</i>			
E. W. Hilgard.....	Prof. Agr. and Dir. Agr. Exp. Sta.	\$4,000 00	
E. J. Wickson.....	Professor Agricultural Practice.....	2,800 00	
R. H. Loughridge.....	Asst. Prof. Agr., Geol. and Agr. Chem.	2,000 00	
M. E. Jaffa.....	Assistant Professor of Agriculture.....	1,750 00	
C. W. Woodworth.....	Assistant Professor of Entomology.....	1,800 00	
Forward.....		<u>\$12,350 00</u>	

SALARIES—Continued.

<i>Department of Agriculture—Continued.</i>		<i>Increase.</i>	<i>New.</i>
Amount forward	\$12,350 00		
G. E. Colby.....Instructor in Agricultural Laboratory	1,500 00		
Leroy Anderson.....Instructor in Dairy Husbandry	1,200 00		
F. T. Bioletti.....Instructor in charge of Viticulture, Olive Culture, and Bacteriology.....	1,300 00		
E. H. Twight.....Assistant in Viticulture and Horti- culture	900 00	\$180 00	
C. A. Colmore.....Clerk to Director Agr. Exp. Sta.	900 00		
E. Kellner.....Gardener Coll. of Agr. and Superin- tendent of Grounds.....	1,200 00		
D. T. Fowler.....Conductor of Farmers' Institutes	1,500 00		
A. J. Cook.....Conductor of Farmers' Institutes	500 00		
C. H. Shinn.....Inspector of Agr. Exp. Stations.....	1,800 00		
J. H. Barber.....Foreman South Coast Range Station.	900 00		
J. W. Neal.....Foreman Foothill Station	900 00		
J. Forrer.....Foreman San Joaquin Valley Station	900 00		
J. W. Mills.....Foreman Southern California Station.	900 00		
Wm. Shutt.....Acting Foreman Santa Monica For- estry Station	600 00		
F. J. Snow.....Student Assistant Agr. Lab.	600 00	180 00	
	<u>\$27,950 00</u>		
<i>Department of Anatomy.</i>	<u>\$5,000 00</u>		\$5,000 00
<i>Department of Astronomy.</i>			
A. O. Leuschner.....Asso. Prof. of Astronomy and Geodesy and Director of Students' Observ'y	\$2,100 00		
S. D. Townley.....Instructor in Practical Astronomy...	1,200 00		
Adelaide Hobe.....Assistant in Astronomy.....	480 00	180 00	
	<u>\$3,780 00</u>		
<i>Department of Botany.</i>			
W. A. Setchell.....Professor of Botany	\$3,000 00		
W. L. Jepson.....Assistant Professor of Botany.....	1,500 00		
W. J. V. Osterhout.....Assistant Professor of Botany.....	1,400 00	200 00	
N. L. Gardner.....Assistant in Botany.....	600 00		
J. B. Davy.....Assistant in Botany and Assistant Botanist to Agr. Exp. Stations.....	1,000 00		
	<u>\$7,500 00</u>		
<i>Department of Chemistry.</i>			
W. B. Rising.....Professor of Chemistry.....	\$3,300 00		
E. O'Neill.....Associate Professor of Organic and Physiological Chemistry	2,400 00		
W. C. Blasdale.....Instructor in Chemistry.....	1,200 00		
Edward Booth.....Instructor in Chemistry.....	800 00		
.....Instructor in Chemistry.....	1,000 00		1,000 00
.....Instructor in Chemistry.....	1,000 00		1,000 00
Charles Gilman.....Assistant in Chemistry.....	900 00		
	<u>\$10,600 00</u>		
<i>Department of Civil Engineering.</i>			
Frank Soulé.....Professor of Civil Engineering	\$3,300 00		
H. I. Randall.....Assistant Professor of Civil Eng.	1,800 00		
L. E. Hunt.....Instructor in Civil Engineering	1,140 00		
A. E. Chandler.....Instructor in Civil Engineering	900 00		
.....Instructor in Civil Engineering	900 00		900 00
J. H. Stutt.....Graduate Assistant in Civil Eng.	500 00		
	<u>\$8,540 00</u>		

SALARIES—Continued.

<i>Department of Drawing.</i>		<i>Increase.</i>	<i>New.</i>
Hermann Kower	Assistant Professor of Drawing	\$1,800 00	
B. R. Maybeck	Instructor in Architecture	1,200 00	
A. V. Saph	Instructor in Drawing	1,000 00	\$100 00
C. Chapel Judson	Instructor in Drawing	900 00	
		<u>\$4,900 00</u>	
<i>Department of English.</i>			
C. M. Gayley	Professor of English Language and Literature	\$3,000 00	
C. B. Bradley	Professor of Rhetoric (on leave, two-thirds pay)	1,800 00	
A. F. Lange	Associate Professor of English and Scandinavian Philology	2,400 00	
L. D. Syle	Associate Prof. of English Literature	1,800 00	
W. D. Armes	Assistant Prof. of English Literature	1,800 00	
—	Assistant Professor of Rhetoric	1,600 00	\$1,600 00
T. F. Sanford	Assistant Prof. of English Literature	1,500 00	
M. C. Flaherty	Instructor in Argumentation	1,000 00	
R. S. Phelps	Assistant in English	500 00	
D. Winter	Assistant in English	500 00	
G. R. Noyes	Instructor in English and Russian	1,400 00	1,400 00
—	Instructor in Speaking	900 00	
		<u>\$18,200 00</u>	
<i>Department of Geography.</i>			
George Davidson	Professor of Geography	\$4,000 00	
<i>Department of Geology.</i>			
Joseph Le Conte	Professor of Geology and Nat. History	\$4,000 00	
J. C. Merriam	Assistant Professor of Palæontology and Historical Geology	1,500 00	
		<u>\$5,500 00</u>	
<i>Department of German.</i>			
—	Professor of German Language and Literature	\$3,300 00	3,300 00
A. Putzker	Professor of German Literature	3,000 00	
J. H. Senger	Associate Professor of German	2,100 00	
C. R. Keyes	Instructor in German	900 00	
M. Centner	Instructor in German	900 00	100 00
		<u>\$10,200 00</u>	
<i>Department of Greek.</i>			
E. B. Clapp	Professor of Greek Language and Literature	\$3,000 00	
Isaac Flagg	Associate Professor of Greek	2,400 00	
J. T. Allen	Instructor in Greek and Classical Archæology	1,200 00	
		<u>\$6,600 00</u>	
<i>Department of History and Political Science.</i>			
—	Professor of Finance	\$4,000 00	4,000 00
T. R. Bacon	Prof. of Modern European History	3,000 00	300 00
C. C. Plehn	Associate Professor of Finance	2,100 00	
K. C. Babcock	Assistant Professor of History and Political Science	1,500 00	
T. W. Page	Assistant Professor of History and Economics	1,500 00	
Forward		<u>\$12,100 00</u>	

SALARIES—Continued.

<i>Department of History and Political Science—Continued.</i>		<i>Increase.</i>	<i>New.</i>
Amount forward.....	\$12,100 00		
W. S. Ferguson.....Instructor in Grecian and Roman History.....	1,000 00		
G. B. Wakeman.....Instructor in History.....	1,000 00		
Lincoln Hutchinson.....Instructor in Commercial Geography.....	1,000 00	\$100 00	
—————Instructor in History.....	900 00		\$900 00
	<u>\$16,000 00</u>		
<i>Department of Irrigation.</i>			
Elwood Mead.....Prof. Inst. and Prac. Irrigation.....	\$1,000 00		1,000 00
James M. Wilson.....Assistant Professor of Irrigation.....	900 00		900 00
	<u>\$1,900 00</u>		
<i>Department of Jurisprudence.</i>			
Wm. Carey Jones....Professor of Jurisprudence.....	\$3,000 00		
G. H. Boke.....Instructor in Jurisprudence.....	1,000 00		
W. H. Gorrill.....Instructor in Law.....	1,000 00		
Warren Olney, Jr....Lecturer in Law.....	350 00	550 00	
W. B. Bosley.....Lecturer in Law.....	350 00		
L. T. Hengstler.....Lecturer in Law.....	350 00		
	<u>\$6,050 00</u>		
<i>Department of Latin.</i>			
W. A. Merrill.....Professor of Latin Lang. and Lit.	\$3,000 00		
Martin Kellogg.....Emeritus Professor of Latin Languages and Literature.....	3,000 00		
L. J. Richardson....Assistant Professor of Latin.....	1,500 00		
—————Assistant Professor of Latin.....	1,800 00		1,400 00
Stanley Simonds....Instructor in Latin.....	1,000 00		
H. C. Nutting.....Instructor in Latin.....	1,200 00	100 00	
H. M. Hopkins.....Instructor in Latin.....	1,100 00	100 00	
	<u>\$12,600 00</u>		
<i>Department of Lick Observatory.</i>			
W. W. Campbell....Director and Astronomer.....	\$4,000 00		
W. J. Hussey.....Astronomer.....	2,200 00		
R. H. Tucker.....Astronomer.....	2,200 00		
C. D. Perrine.....Assistant Astronomer.....	1,500 00		
R. G. Aitken.....Assistant Astronomer.....	1,200 00		
W. H. Wright.....Assistant Astronomer.....	1,200 00		
H. M. Reese.....Fellow in Astronomy.....	600 00		
R. T. Crawford.....Fellow in Astronomy.....	600 00		
H. K. Palmer.....Fellow in Astronomy.....	600 00		
J. McDonald.....Machinist.....	1,000 00		
J. L. Bane.....Carpenter.....	900 00		
E. Zengeler.....Instrument-maker.....	900 00		
A. J. Cloud.....Secretary.....	720 00		
C. V. Vogt.....Janitor.....	720 00		
Paul Soto.....Laborer.....	600 00		
N. D. Soto.....Laborer.....	600 00		
C. G. Dall.....Assistant.....	720 00		
R. H. Curtiss.....Assistant.....	600 00		
	<u>\$20,860 00</u>		
<i>Department of Mathematics.</i>			
Irving Stringham...Professor of Mathematics.....	\$3,300 00		
George C. Edwards...Associate Professor of Mathematics..	2,400 00		
M. W. Haskell.....Associate Professor of Mathematics (on leave, two-thirds pay).....	1,600 00		
Forward.....	<u>\$7,300 00</u>		

SALARIES—Continued.

<i>Department of Mathematics—Continued.</i>		<i>Increase.</i>	<i>New.</i>
Amount forward.....	\$7,300 00		
A. B. Pierce..... Instructor in Mathematics.....	1,200 00		
A. W. Whitney..... Instructor in Mathematics.....	1,100 00		
E. J. Wilezynski..... Instructor in Mathematics.....	1,200 00	\$100 00	
D. N. Lehmer..... Instructor in Mathematics.....	1,000 00		
E. M. Blake..... Instructor in Mathematics.....	1,000 00		
C. A. Noble..... Instructor in Mathematics.....	1,200 00	400 00	
— — — — — Assistant in Mathematics.....	500 00		
	<u>\$14,500 00</u>		
<i>Department of Military Science and Tactics.</i>			
H. De H. Waite..... Professor of Military Science, etc.....	\$800 00		
<i>Department of Mechanics.</i>			
F. G. Hesse..... Professor of Hydraulics.....	\$3,000 00		
C. L. Cory..... Professor of Electrical Engineering.....	3,000 00	600 00	
J. N. Le Conte..... Instructor in Mech. Engineering.....	1,200 00		
— — — — — Instructor in Steam Engineering.....	1,200 00		1,200 00
W. A. Lynn..... Instructor in Electrical Engineering.....	1,100 00		
J. D. Mortimer..... Assistant in Electrical Engineering.....	750 00		
G. E. Cox..... Assistant in Mechanics and Foreman of Woodwork.....	1,000 00		
Oscar Schober..... Assistant in Mechanics and Mecha- nician.....	1,000 00		
— — — — — Assistant in Mechanics.....	800 00		
Ira Currier..... Engineer and Electrician.....	1,200 00		
W. H. Lozier..... Fireman.....	900 00		
	<u>\$15,150 00</u>		
<i>Department of Mineralogy.</i>			
A. C. Lawson..... Professor of Mineralogy and Geology.....	\$2,700 00		
F. C. Calkins..... Assistant in Geology.....	600 00		
A. S. Eakle..... Instructor in Mineralogy.....	1,000 00	400 00	
	<u>\$4,300 00</u>		
<i>Department of Mining.</i>			
S. B. Christy..... Professor of Mining and Metallurgy.....	\$3,000 00		
E. A. Hersam..... Assistant Professor of Metallurgy.....	1,800 00		
W. S. Morley..... Instructor in Assaying and Mill Asst.....	1,000 00		
W. H. Hilton..... Assistant in Assaying.....	720 00		
Frank Richards..... Helper.....	900 00		
	<u>\$7,420 00</u>		
<i>Department of Oriental Languages.</i>			
John Fryer..... Agassiz Professor of Oriental Lan- guages.....	\$3,000 00		
W. N. Fong..... Chinese Assistant.....	480 00	120 00	
Y. Kuno..... Japanese Assistant.....	480 00	120 00	
	<u>\$3,960 00</u>		
<i>Department of Education.</i>			
E. E. Brown..... Professor of the Theory and Practice of Education.....	\$3,000 00		
F. B. Dresslar..... Assistant Professor of Science and Art of Teaching.....	2,000 00		
E. C. Moore..... Instructor in Education.....	1,200 00		
T. L. Heaton..... Assistant in Education.....	750 00	150 00	
— — — — — Examiner of Schools.....	1,500 00		1,500 00
	<u>\$8,450 00</u>		

SALARIES—Continued.*Department of Philosophy.*

		<i>Increase.</i>	<i>New.</i>
G. H. Howison	Mills Professor of Philosophy, etc....	\$4,000 00	
G. M. Stratton	Associate Professor of Philosophy, and Director of Psychol. Lab.....	2,400 00	
C. M. Bakewell	Associate Professor of Philosophy	2,400 00	
W. P. Montague	Instructor in Logic and the Theory of Knowledge	1,000 00	
H. A. Overstreet	Instructor in Philosophy	900 00	\$300 00
Knight Dunlap	Assistant in Psychol. Laboratory	500 00	500 00
		<u>\$11,200 00</u>	

Department of Physical Culture.

W. E. Magee	Director and Assistant Professor of Physical Culture	\$2,000 00	
G. F. Reinhardt	Instructor in Physical Culture	900 00	300 00
Genevra E. Magee	Assistant in Physical Culture	900 00	
—————	Assistant in Physical Culture	480 00	\$480 00
A. A. D'Ancona	Professor of Hygiene	800 00	
		<u>\$5,080 00</u>	

Department of Physics.

F. Slate	Professor of Physics	\$3,000 00	
W. J. Raymond	Assistant Professor of Physics	1,800 00	
E. P. Lewis	Assistant Professor of Physics	1,800 00	
E. R. Drew	Instructor in Physics	1,500 00	
—————	Instructor in Physics	1,200 00	
W. R. Stamper	Mechanician	1,200 00	
A. Incell	Assistant in Physics	600 00	
W. T. Skilling	Assistant in Physics	500 00	
		<u>\$11,600 00</u>	

Department of Romanic Languages.

F. V. Paget	Professor of Romanic Languages and Literature	\$3,000 00	
C. H. Howard	Instructor in French	1,200 00	
G. E. Fauchaux	Instructor in French	1,200 00	
S. A. Chambers	Instructor in French	1,200 00	
F. H. Bartlett	Assistant in French	600 00	
—————	Instructor in French	1,000 00	1,000 00
—————	Instructor in Spanish	1,000 00	1,000 00
		<u>\$9,200 00</u>	

Department of Semitic Languages.

M. L. Margolis	Associate Professor of Semitic Lan- guages	<u>\$2,400 00</u>	
----------------	---	-------------------	--

Department of Zoölogy.

W. E. Ritter	Associate Professor of Zoölogy	\$2,100 00	
C. A. Kofoid	Assistant Professor of Histology and Embryology	1,500 00	
F. W. Bancroft	Instructor in Physiology	1,000 00	
H. B. Torrey	Instructor in Zoölogy	1,000 00	1,000 00
		<u>\$5,600 00</u>	

Wilmerding School.

G. A. Merrill	Director	\$1,800 00	
R. M. Grant	Master Carpentry Department	1,200 00	
D. H. Briggs	Instructor in Wood Carving	1,200 00	
Percy Walker	Master Bricklaying and Plastering Department	1,200 00	
Forward		<u>\$5,400 00</u>	

SALARIES—Continued.

Wilmerding School—Continued.

		<i>Increase.</i>	<i>New.</i>
Amount forward	\$5,400 00		
J. A. Landerville Instructor in Cabinet-making	1,200 00		
Julia M. Edwards Instructor in History	1,000 00		
F. J. Lindburg Instructor in Blacksmithing	1,200 00		
Geo. F. Wood Master Plumbing and Tool-grinding Department	1,200 00		
W. F. Belfrage Instructor in Mathematics	1,200 00	\$200 00	
J. McHenry Instructor in Mech. & Arch. Drawing	1,200 00		
Felix Peano Instructor in Principles of Art, etc.	750 00		
Bertha A. Noltemeier. Stenographer, etc.	900 00		
J. E. Lozier Janitor	720 00		

\$14,770 00*Fellowships and Scholarships.*

Phœbe A. Hearst Scholarships	\$2,400 00
State of California Scholarships	3,500 00
Levi Strauss Scholarships	3,500 00
Le Conte Memorial Fellowship	596 00
C. B. Houghton Scholarship	150 00

\$10,146 00*Recapitulation.*

Administration	\$38,840 00
University Library	7,540 00
University Printing Office	1,950 00
Department of Agriculture	27,950 00
Anatomy	5,000 00
Astronomy	3,780 00
Botany	7,500 00
Chemistry	10,600 00
Civil Engineering	8,540 00
Drawing	4,900 00
English	18,200 00
Geography	4,000 00
Geology	5,500 00
German	10,200 00
Greek	6,600 00
History and Political Science	16,000 00
Irrigation	1,900 00
Jurisprudence	6,050 00
Latin	12,600 00
Lick Observatory	20,860 00
Mathematics	14,500 00
Military Science and Tactics	800 00
Mechanics	15,150 00
Mineralogy	4,300 00
Mining	7,420 00
Oriental Languages	3,960 00
Education	8,450 00
Philosophy	11,200 00
Physical Culture	5,080 00
Physics	11,600 00
Romanic Languages	9,200 00
Semitic Languages	2,400 00
Zoölogy	5,600 00
Wilmerding School	14,770 00
Forward	\$332,940 00

SALARIES—Continued.*Recapitulation—Continued.*

Amount forward	\$332,940 00
Phoebe A. Hearst Scholarships	2,400 00
Cornelius B. Houghton Scholarship	150 00
State of California Scholarships	3,500 00
Levi Strauss Scholarships	3,500 00
Le Conte Memorial Fellowship	596 00

\$343,086 00**BUDGETS.**

Fuel	\$2,500 00
Equipment	5,600 00
Repairs	5,600 00
Telegraphing and expressage	900 00
Stationery	200 00
Postage	900 00
Examination of schools	1,500 00
Expenses	4,700 00
Water	2,750 00
Light and power	4,000 00
Lecturers	3,000 00
University publications	3,000 00
University extension	3,000 00
Library—Books and periodicals	\$15,000 00
Binding	2,500 00
Furniture	1,000 00
Assistance	1,200 00
	<u>19,700 00</u>
Printing Office	3,000 00
University Site	6,875 00
Agriculture—Current expenses	\$5,500 00
Farmers' Institutes	1,500 00
Viticulture	250 00
Forestry	1,000 00
	<u>8,250 00</u>
Astronomy—Current expenses	\$1,380 00
Student assistance	120 00
	<u>1,500 00</u>
Botany—Current expenses	\$600 00
Herbarium specimens	400 00
	<u>1,000 00</u>
Labor	1,500 00
Chemistry—Current expenses	\$10,000 00
Student assistance	2,500 00
	<u>12,500 00</u>
Civil Engineering—Current expenses	\$1,600 00
Student assistant	300 00
	<u>1,900 00</u>
Commerce, School of (lecturers or instructors)	3,000 00
Dairying	10,000 00
English (Reader)	300 00
Geology—Current expenses	\$300 00
Assistance	200 00
	<u>500 00</u>
German (Reader)	420 00
Greek—Current expenses	\$50 00
Reader	100 00
	<u>150 00</u>
History and Political Science (Readers)	600 00
Irrigation	200 00
Forward	<u>\$109,045 00</u>

BUDGETS—Continued.

Amount forward		\$109,045 00
Latin—Current expenses.....	\$50 00	
Reader	100 00	
Assistant.....	100 00	
		250 00
Lick Observatory—Current expenses.....	\$5,500 00	
Printing.....	500 00	
		6,000 00
Mathematics		100 00
Mechanics		7,500 00
Mineralogy.....		900 00
Military Science.....		500 00
Mining		2,500 00
Oriental Languages		125 00
Education		75 00
Philosophy.....		500 00
Physical Culture		500 00
Physics—Current expenses.....	\$2,500 00	
Assistance	1,600 00	
		4,100 00
Zoölogy		1,400 00
Agricultural Experiment Stations		7,510 00
Wilmerding School		4,800 00
Medal Fund.....		237 60
Walton Memorial Loan Fund.....		150 00
Permanent Improvement Fund.....		60,000 00
		<u>\$206,192 60</u>

RESUME.

Expenditures—Salaries	\$343,086 00	
Budgets.....	206,192 60	
		\$549,278 60
Income.....		541,161 25
Estimated deficit.....		<u>\$8,117 35</u>

President Wheeler reported that Professor Haskell declined the leave of absence on account of illness, and therefore remains at full salary; the provision allowed for an Assistant in Mathematics was withdrawn.

A. S. King and W. A. Sheldon were placed on the salary roll as Assistants in the Physics Department at \$500 per annum each, and that amount was deducted from the budget apportionment for assistance in said department.

- On a call of the ayes and noes, the budget as amended, including the recommendations of the President relative to new appointments and reappointments, was approved, with the exception of the items relating to the Lick Observatory and to the establishment of a Department of Anatomy. [April 19, 1901.]

Lick Observatory Budget.

President Wheeler recommended the adoption of the following budget for the Lick Observatory for the year ending June 30, 1902:

W. W. Campbell, Director and Astronomer.....	\$4,000 00
W. J. Hussey, Astronomer.....	2,200 00
R. H. Tucker, Astronomer.....	2,200 00
C. D. Perrine, Assistant Astronomer.....	1,600 00
R. G. Aitken, Assistant Astronomer.....	1,300 00
W. H. Wright, Assistant Astronomer.....	1,300 00
H. M. Reese, Assistant in Astronomy.....	800 00
H. K. Palmer, Fellow in Astronomy.....	600 00
C. G. Dall, Fellow in Astronomy.....	600 00
R. H. Curtiss, Fellow in Astronomy.....(from date of return)	600 00
J. McDonald, Machinist.....	1,000 00
J. L. Bane, Carpenter.....	900 00
———, Instrument-maker.....	1,000 00
A. J. Cloud, Secretary.....	720 00
G. A. Vogt, Janitor.....	720 00
Paul Soto, Laborer.....	600 00
N. D. Soto, Laborer.....	600 00

[Adopted, on a call of the ayes and noes, April 24, 1901.]

\$5,000 to be included in Budget for Department of Anatomy.

Regent Rodgers moved that the sum of \$5,000 be included in the budget for the ensuing year, for the purpose, if the Board of Regents so determine, of defraying the expenses of a Department of Anatomy. [Carried, May 14, 1901.]

Payment of Salary of late W. H. Hilton.

Counsel Mhoon reported, *in re* salary due the late W. H. Hilton, "that the receipt of the father and mother, W. H. Hilton and Mary Virginia Hilton, would substantially protect the rights of the University."

On motion, it was directed that the salary due the late W. H. Hilton be paid to his father, upon the Secretary receiving a receipt signed by the father, mother, and sister of said Hilton. [June 28, 1901.]

ADDITIONS TO THE BUDGET, 1900-1901.

1900—July 24—For equipment of addition to Chemical Laboratory.....	\$3,050 00
Sept. 12—To pay for the services of a curator for the Alaskan Museum.....	135 00
Sept. 18—For purchase of books for the University Library.....	1,615 00
Dec. 11—For planting shrubbery on the Campus in Berkeley.....	575 00
For equipment of the Physiological Laboratory.....	500 00
1901—Mar. 12—For the Greek Department.....	50 00
Special lectures, and expenses incidental thereto.....	1,250 00
For the Department of Civil Engineering.....	85 00
April 19—For the expenses of Commencement Day.....	2,500 00
To assist in defraying Class Day expenses.....	250 00
For the purchase of palæontological specimens.....	100 00
For fire protection for the Affiliated Colleges buildings.....	1,500 00
To pay Miss Bertha A. Noltemeier for her services during the time she was in charge of the Wilmerding School.....	350 00

Reappropriations.

The Finance Committee submitted the following:

We are in receipt of a request from Professor Campbell for the reappropriation of \$700, amount of outstanding requisitions payable from the Lick Observatory budget for the year ending June 30, 1900.

Also, a request from Professor Lawson for the reappropriation of \$95, amount of outstanding requisition payable from the budget of the Department of Mineralogy for the year ending June 30, 1900.

Both of these amounts have been carried forward, and your committee therefore recommends that they be reappropriated.

[Concurred in, on a call of the ayes and noes, September 12, 1900.]

Report of Finance Committee in re Claims of Henry T. Ardley.

The Finance Committee submitted the following:

We are in receipt of a claim made by Henry T. Ardley for \$175, one month's salary, and for \$34, his estimate of the value of plaster casts which he states he brought to the University and used for class instruction. For the information of the Board, we will say that Professor Ardley asserts that this \$175 is due him for salary for the month of July, 1900, in order to complete the year. In 1894 Professor Ardley was appointed Associate Professor of Decorative and Industrial Art, with salary of \$2,000 per annum, to take effect August 1, 1894.

We recommend that the claim for salary be denied, and that the sum of \$34 be appropriated for the purpose of paying the amount of the claim for plaster casts.

[Concurred in, on a call of the ayes and noes, September 12, 1900.]

Kern County Bonds.

The Finance Committee submitted the following:

Resolved, That the State Treasurer is hereby requested to deliver to Louis Sloss, Treasurer of the University of California, the sum of \$6,000, now deposited in the State Treasury to the credit of the Consolidated Perpetual Endowment Fund of the University of California, being principal of Kern County Improvement Bonds Nos. 59, 61, 62, 63, 64, and 65, or in the event of said sum not being paid into the State Treasury, that the State Treasurer is requested to deliver to Louis Sloss, Treasurer of the University of California, for collection and investment, Kern County Improvement Bonds Nos. 59, 61, 62, 63, 64, and 65, being six bonds, par value of \$1,000 each, now in the hands of the State Treasurer to the credit of the Consolidated Perpetual Endowment Fund of the University of California, upon presentation of this resolution, certified by the Secretary and endorsed by the Governor of the State, requiring the same.

[Adopted, December 11, 1900.]

REPORT OF THE AUDITOR TO JUNE 30, 1901.

The following report of Auditor J. J. Herr, for the year ending June 30, 1901, was submitted:

BERKELEY, CAL., August 5, 1901.

A. W. FOSTER, ESQ., *Chairman of the Finance and Auditing Committee of the Board of Regents of the University of California,*

SIR: I have audited the books and accounts of the Regents of the University of California, in their office, South Hall, Berkeley, California, consisting of the "General Books of Accounts," the "Agricultural Experiment Stations," and the "Morrill College Aid Fund," for the year ending June 30, 1901, and report them as being correct.

Vouchers, incurred through requisitions signed by the Acting Secretary and approved by the President of the University of California, orders issued and checked with the

requisitions, bills approved by proper committees, and allowed by the Auditing Committee, ordered paid by the Board of Regents as shown in the minutes of their proceedings, and receipted, are on file for all payments as charged in the cash book during above period.

All moneys received by the Acting Secretary for rents, sale of wood at Lick Observatory and the University, sale of publications and material, returns on vouchers, students' deposits, payments on land, etc., have been paid to the Treasurer, and appear in his accounts and statements.

All checks drawn by the Acting Secretary on the Treasurer, for returns of balances due students from their deposits, check and agree with payments of same by the Treasurer.

Examined the Treasurer's statements of receipts and disbursements for above period, and find them correct and agreeing with the Regents' books.

The statements rendered by Benjamin Bangs, agent for the Johnson and Sacramento buildings in San Francisco, of rents received and expense incurred for the year ending June 30, 1901, are correct. The amounts shown therein as paid to the Treasurer agree with his statement of same.

Herewith please find trial balance of the general ledger to July 1, 1901. Also the following statements:

The Consolidated Perpetual Endowment Fund.
 The Lick Observatory Endowment Fund.
 The D. O. Mills Endowment Fund.
 The Hermann Royer Endowment Fund.
 The Edward Tompkins Endowment Fund.
 The J. Clute Wilmerding Endowment Fund.
 The Cora Jane Flood Endowment Fund.
 The Michael Reese Library Fund.
 The Jane K. Sather Library Fund.
 The Denicke Library Fund.
 The Jane K. Sather Law Library Fund.
 The Jane K. Sather Chair Fund.
 The University Medal Fund.
 The Whiting Fund.
 The F. J. Walton Memorial Loan Fund.
 The Le Conte Memorial Fellowship Fund.
 The C. B. Houghton Scholarship Fund.
 The P. Charles Cole Scholarship Fund.
 Bonds in hands of State Treasurer.
 The State of California, Diverted Funds.
 Notes and Mortgages due to the University of California.

Respectfully submitted.

(Signed:) JOHN J. HERR, Auditor.

STATEMENT OF FUNDS ACCOUNTS.

The Consolidated Perpetual Endowment Fund.

1900—June 30—By balance, per statement rendered.....	\$1,959,114 04
Dec. 31—By S. F. Savings Union, 6 months' interest on deposit to date	11 74
Dec. 31—By Security Savings Bank, 6 months' interest on deposit to date	17 59
1901—June 29—By students' deposits for diplomas	1,505 00
June 30—By S. F. Savings Union, 6 months' interest on deposit to date	11 95
June 30—By Security Savings Bank, 6 months' interest on deposit to date	17 89
	<hr/>
	\$1,960,678 21

Invested as followed, viz:

In Bonds	\$684,000 00	
Mortgages	515,821 93	
Diverted Funds	79,750 00	
Johnson Building	400,000 00	
Sacramento Building	210,000 00	
Savings banks	205 97	
Bear Gulch Water Co. bonds	50,000 00	
Cash awaiting investment	20,900 31	
		<u>\$1,960,678 21</u>

The Lick Observatory Fund.

1901—June 30—By balance		\$90,018 16
Invested as follows, viz:		
In Bonds	\$90,000 00	
Cash	18 16	
		<u>\$90,018 16</u>

The D. O. Mills Endowment Fund.

1901—June 30—By balance		\$100,000 00
Invested as follows, viz:		
In Mortgages	\$98,500 00	
Cash	1,500 00	
		<u>\$100,000 00</u>

The Hermann Royer Endowment Fund.

1901—June 30—By balance		\$2,155 64
Invested as follows, viz:		
In cash		<u>2,155 64</u>

The Edward Tompkins Endowment Fund.

1900—June 30—By balance		\$47,182 63
1901—June 30—By interest earnings for 12 months to date		3,054 96
		<u>\$50,237 59</u>
1901—June 30—To salary paid John Fryer to date	\$3,000 00	
To balance	47,237 59	
		<u>\$50,237 59</u>
1901—June 30—By balance on hand		\$47,237 59
Invested as follows, viz:		
In Mortgages	\$47,000 00	
Cash	237 59	
		<u>\$47,237 59</u>

The J. Clute Wilmerding Endowment.

1901—June 30—By balance		\$400,000 00
By accrued interest		37,687 66
		<u>\$437,687 66</u>
Invested as follows, viz:		
In Mortgages	\$434,000 00	
Cash	3,687 66	
		<u>\$437,687 66</u>

The Cora Jane Flood Endowment.

1901—June 30—By balance		\$114,379 24
Invested as follows, viz:		
In Bear Gulch Water Co. bonds		<u>\$114,379 24</u>

The Michael Reese Library Fund.

1901—June 30—By balance	\$50,000 00
Invested as follows, viz:	
In mortgages	<u>\$50,000 00</u>

The Jane K. Sather Library Fund.

1901—June 30—By balance	\$10,000 00
Invested as follows, viz:	
In notes	<u>\$10,000 00</u>

The Denicke Library Fund.

1901—June 30—By balance	\$1,000 00
Invested as follows, viz:	
In cash	<u>\$1,000 00</u>

The Jane K. Sather Law Library Fund.

1901—June 30—By balance	\$10,000 00
Invested as follows, viz:	
In real estate in Oakland and Alameda	<u>\$10,000 00</u>

The Jane K. Sather Chair Fund.

1901—June 30—By balance	\$75,000 00
Invested as follows, viz:	
In stock S. F. National Bank and Sather Banking Company...	\$20,000 00
Fireman's Fund Insurance Company	21,000 00
Real estate, Ashland, Oregon	6,000 00
Savings banks	28,000 00
	<u>\$75,000 00</u>

The University Medal Fund.

1900—June 30—By balance per statement account rendered	\$4,144 55
1901—June 30—By interest earnings for 12 months to date	184 77
Invested as follows, viz:	
In Mortgages	\$3,898 02
Cash	431 30
	<u>\$4,329 32</u>

The Whiting Fund.

1901—June 30—By balance	\$20,000 00
Invested as follows, viz:	
In mortgages	<u>\$20,000 00</u>

The F. J. Walton Memorial Loan Fund.

1900—June 30—By balance, per statement rendered	\$2,399 02
1901—June 30—By interest earnings for 12 months to date	220 02
	<u>\$2,619 04</u>
1900—Sept. 13—To loan, per President	\$125 00
1901—April 19—To loan, per President	35 00
	<u>\$160 00</u>
To balance	2,459 04
	<u>\$2,619 04</u>
1901—June 30—By balance	\$2,459 04
Invested as follows, viz:	
In Mortgages	\$2,180 05
Cash	278 99
	<u>\$2,459 04</u>

The Le Conte Memorial Fellowship Fund.

1900—June 30—By balance, per statement rendered.....		\$9,920 33
1901—June 30—By interest earnings for 12 months to date.....		660 67
		<hr/> \$10,581 00
1901—June 30—To Fellowships for 12 months to date.....	\$576 00	
To balance.....	10,005 00	
		<hr/> \$10,581 00
1901—June 30—By balance on hand.....		\$10,005 00
Invested as follows, viz:		
In Mortgages.....	\$9,600 00	
Cash.....	405 00	
		<hr/> \$10,005 00

The C. B. Houghton Scholarship.

1900—June 30—By balance, per statement rendered.....		\$3,069 00
1901—June 30—By interest earnings for 12 months to date.....		195 00
		<hr/> \$3,264 00
1901—June 30—To Scholarship for 12 months to date.....	\$150 00	
To balance.....	3,114 00	
		<hr/> \$3,264 00
1901—June 30—By balance on hand.....		\$3,114 00
Invested as follows, viz:		
In Mortgages.....	\$3,000 00	
Cash.....	114 00	
		<hr/> \$3,114 00

The P. Charles Cole Scholarship.

1900—June 30—By balance, per statement rendered.....		\$1,157 41
1901—June 30—By interest earnings for 12 months to date.....		69 96
		<hr/> \$1,227 37
Balance on hand.....		\$1,227 37
Invested as follows, viz:		
In Mortgages.....	\$1,000 00	
Cash.....	227 37	
		<hr/> \$1,227 37

Bonds.

Held in trust by the Treasurer of the State of California.

1900—June 30—To balance, per statement rendered.....		\$785,000 00
1900—July 31—By Plumas County bonds redeemed.....	\$5,000 00	
June 30—By Kern County bonds redeemed.....	6,000 00	
		<hr/> \$11,000 00
Balance.....	774,000 00	
		<hr/> \$785,000 00
1901—June 30—To balance on hand.....		\$774,000 00
As follows:		
State of California bonds.....	\$751,000 00	
Montgomery Avenue bonds.....	22,000 00	
San Francisco Park Improvement bonds.....	1,000 00	
		<hr/> \$774,000 00

The State of California.

1901—June 30—To balance of University Funds held in trust, on which the State pays interest at 6%, payable semi-annually.....		\$79,750 00
--	--	-------------

Bills Receivable.

Name.	Location of Property.	Amount of Note.	Rate.
Mechanics' Institute	San Francisco	\$100,000	6½
G. M. Mitchell	San Francisco	10,000	6
Pacific Power Co.	San Francisco	75,000	6
A. Koenig	San Francisco	30,000	6
J. N. G. Hunter	San Francisco	80,000	6
W. A. & J. C. McCauley	San Francisco	4,500	6
S. J. & H. N. Loop	San Francisco	20,000	6
O. W. Nordwell	San Francisco	15,000	6
Edwin Danforth	San Francisco	20,000	6
Henrietta I. Selby	San Francisco	40,000	6½
Emma Rose	San Francisco	18,000	6
Charles Jurgens	Oakland	85,000	6
A. C. Henry	Oakland	25,000	6½
C. R. Lewis	Oakland	13,000	6½
Louise Nordhausen et al.	Oakland	15,000	6½
L. L. & F. C. Bromwell	Oakland	10,000	7½
L. L. & F. C. Bromwell	Oakland	2,500	7½
Annie M. Johnson et al.	Oakland	47,000	6½
Philetus Everts	Oakland	65,000	6
W. H. Weilbye	Oakland	20,000	6½
H. Sevening	Oakland	25,000	6½
Mrs. Fannie McAllis	Oakland	5,000	7
James B. Lankershim	Los Angeles	100,000	7
Chris Henne	Los Angeles	35,000	7
N. W. Stowell	Los Angeles	57,000	7
L. J. Hammond	Los Angeles	25,000	7
H. S. & A. Workman	Los Angeles	56,000	7
James Bailey	Sacramento	30,000	7
W. C. Turner	Merced County	47,000	7
N. P. Chipman	Tehama County	15,000	7
J. L. Beard	Alameda County	5,000	7
J. L. Beard	Alameda County	25,000	7
G. & M. A. Burdell	Marin County	45,000	6
F. M. Smith .....	.....	10,000	6

JOHNSON BUILDING.**Changes in the Building.**

The Finance Committee submitted the following:

We have received a communication from Nathan-Dohrmann Co., one of the tenants in the Johnson Building, as follows:

"We have for some time past found the premises which we occupy inadequate for our business, which is assuming more and more a wholesale character, and which requires much more room than our present premises contain.

"To remedy this condition, Mr. Claus Spreckels has offered to erect a building on Bush Street, abutting that part of the University's building which we rent, and which addition will give us sufficient room for all our future wants.

"In order to make the different premises available for our business, it will require

very material changes and improvements on part of the University's premises, which we estimate to cost from \$5,000 to \$6,000.

"In addition, we will probably have to expend fully \$15,000 for other changes and improvements in fixtures and appliances in the different buildings.

"In view of these facts, we would ask that the University appropriate \$2,500 toward the improvements to be made on their premises, we paying the balance, in consideration of which we are willing to take a five years' lease from the expiration of our present term, namely, from March 1, 1902. In this case, we would retain all the premises we now occupy and pay the rent which we are paying, which would amount to \$745 on what we would retain, vacating, when the new building is ready, a loft on Trinity Street, for which, in addition to the above, we are paying \$45 a month.

"It is probable that the improvements cannot be finished until 1902, and it would be agreeable to us to have the payments by the University made either next year or in two equal halves in the University's two next fiscal years after they are finished.

"In order that we may close the offer of Mr. Spreckels and proceed on the lines suggested, we ask for an early decision on the propositions as submitted above."

Your committee recommends that the offer made by Nathan-Dohrmann Co. be accepted and the changes requested be made, subject to the approval by the Finance Committee of the plans to be submitted by the Nathan-Dohrmann Co., at a cost not to exceed \$2,500, and that a new lease be made for five years from March 1, 1902.

[Adopted, on a call of the ayes and noes, April 19, 1901.]

New Freight Elevator.

The Finance Committee submitted the following:

The agent of the Sacramento Building reports that a new elevator is needed in that building, the one there now being in a dangerous condition. The Cahill & Hall Elevator Co. offer to take out the freight elevator now in the Johnson Building and set it up complete in the Sacramento Building at a cost of \$760, and to furnish an entirely new freight elevator in the Johnson Building for \$1,000. We recommend that your committee be authorized to have this work done.

[Adopted, on a call of the ayes and noes, April 19, 1901.]

Bid of O. E. Brady for Underpinning Building Accepted.

Regent Foster offered the following:

Resolved, That the bid of O. E. Brady & Son, in the sum of \$1,513, for the protection and underpinning of the Johnson Building, be accepted, and that the Chairman of the Finance Committee execute a proper contract, to be prepared by the Counsel of the Board.

[Adopted, on a call of the ayes and noes, June 28, 1901.]

SACRAMENTO BUILDING.

Revocable License Granted to Market Street Railway Company.

On behalf of the Committee on Grounds and Buildings, Regent Rein-stein moved that the Market Street Railway Company be granted a revocable license to attach an electric wire by a hook on the Sacramento Building on First Street, instead of placing a pole in front of the building. [Carried, July 24, 1900.]

PURCHASE OF HILLEGASS TRACT.

(Marie Hillegass.)

Regent Rodgers offered the following:

Resolved, That the President of the University and the Secretary of the Board of Regents be authorized to execute, in the name and on behalf of this corporation, an agreement with Marie Hillegass, in the following form:

THIS AGREEMENT, made and entered into this —— day of ——, 1900, between MARIE HILLEGASS, a widow, of the City of Oakland, County of Alameda, State of California, the party of the first part, and THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, a corporation of said State, party of the second part.

WHEREAS, The party of the first part has sold to the party of the second part, for the aggregate sum of one hundred and twenty-three thousand nine hundred and ten (123,910) dollars, gold coin of the United States of America, payable by the party of the second part at the times and in the manner hereinafter set forth, all those certain lots, pieces, or parcels of land situate, lying, and being in the Town of Berkeley, County of Alameda, State of California, being portions of plot number seventy-one (71) of the V. & D. Peralta Rancho, and known as plots number one (1), number two (2), number three (3), number four (4), number five (5), number six (6), and number seven (7), as all of the said plots are severally marked, laid down, and so designated upon a certain map entitled "Map number (2) two, showing subdivision into plots of Hillegass Tract, north of Bancroft Way, Berkeley," a copy of which map is attached hereto;

AND WHEREAS, The party of the second part, being first duly authorized by a resolution regularly adopted at a meeting of the Board of said Regents, held the —— day of ——, 1900, has purchased all of the said real property, for the said sum, payable at the times and in the manner hereinafter set forth;

AND WHEREAS, For and in consideration of the premises, and for the purpose of carrying out the said sale and purchase, and the terms and conditions thereof, the party of the first part has subscribed and made and properly acknowledged, so as to entitle the same to be recorded, seven separate deeds of grant of the said several plots, the said seven deeds being regularly numbered in numerical order from one (1) to seven (7), and corresponding severally with the several plots to be conveyed and the several payments to be made therefor, and has delivered the said several deeds to and deposited the same in escrow with the Union Trust Company of San Francisco, a corporation, to be delivered by said Union Trust Company of San Francisco to the said party of the second part only in the numerical order hereinafter mentioned and upon the making, by the party of the second part, of the payments herein provided for.

Now, therefore, this agreement witnesseth: That the terms of the purchase of said property and the conditions appurtenant to the same by the party of the second part, and the conditions upon which the said several deeds are to be delivered by said Union Trust Company to the party of the second part, are as follows:

The payments for the said several plots and the deliveries by the said Union Trust Company to the party of the second part of the deed or deeds therefor in each and every case, whether the said payments shall be made at their several dates of maturity hereinafter provided, or before maturity, as hereinafter also provided, shall be made only in the numerical order hereinafter provided and not otherwise; that is to say, the party of the second part shall not receive, nor be entitled to receive, from said Union Trust Company, in any case, a deed to any plot until and unless all deeds prior in numerical order of delivery shall have been paid for, and the deeds therefor delivered. The said payments shall all be made by the party of the second part to the Union Trust Company of San Francisco for and on account of said party of the first part, and the delivery of the said deeds shall be made in the manner and at the times and in the following numerical order:

First—The party of the second part shall pay to the said Union Trust Company, on the execution of this agreement, the sum of seventeen thousand eight hundred (17,800) dollars, and thereupon said Union Trust Company shall deliver to said party of the second part the deed of grant of the said plot number one (1);

Second—The party of the second part shall pay to the said Union Trust Company, on the first day of July, 1901, the sum of seventeen thousand eight hundred (17,800) dollars, and thereupon said Union Trust Company shall deliver to the party of the second part the deed of grant left in escrow of said plot number two (2);

Third—The party of the second part shall pay to the said Union Trust Company, on the first day of July, 1902, the sum of seventeen thousand eight hundred (17,800) dollars, and thereupon said Union Trust Company shall deliver to said party of the second part the deed of grant left in escrow of said plot number six (6);

Fourth—The party of the second part shall pay to the said Union Trust Company, on the first day of July, 1903, the sum of sixteen thousand six hundred and sixty-six (16,666) dollars, and thereupon said Union Trust Company shall deliver to said party of the second part the deed of grant left in escrow of said plot number three (3);

Fifth—The party of the second part shall pay to the said Union Trust Company, on the first day of July, 1904, the sum of seventeen thousand three hundred and seven (17,307) dollars, and thereupon the said Union Trust Company shall deliver to said party of the second part the deed of grant left in escrow of said plot number four (4);

Sixth—The party of the second part shall pay to the said Union Trust Company, on the first day of July, 1905, the sum of seventeen thousand nine hundred and forty-eight (17,948) dollars, and thereupon the said Union Trust Company shall deliver to said party of the second part the deed of grant left in escrow of said plot number five (5);

Seventh—The party of the second part shall pay to the said Union Trust Company, on the first day of July, 1906, the sum of eighteen thousand five hundred and eighty-nine (18,589) dollars, and thereupon the said Union Trust Company shall deliver to the said party of the second part the deed of grant left in escrow of said plot number seven (7).

The party of the second part shall have the option of paying any or all of the above installments before maturity, and thereupon the said Union Trust Company shall deliver to the party of the second part the deed or deeds of the plot or plots so paid for, but only in the numerical order of their maturity as hereinbefore provided.

In the event of the party of the second part paying all or any of the fourth, fifth, sixth, or seventh installments before maturity, but after the first day of July, 1902, a reduction of and in the amounts payable respectively shall be made as next herein mentioned, viz: In such case the said Union Trust Company is authorized to receive instead of the amounts hereinbefore provided, and the said party of the first part shall and will accept in full satisfaction of the said payments, and the said Union Trust Company is authorized to and shall make delivery of the said several deeds corresponding to the said fourth, fifth, sixth, or seventh installments upon payment of the following amounts, that is to say:

1. Instead of the fourth installment of sixteen thousand six hundred and sixty-six (16,666) dollars, the sum of sixteen thousand and twenty-five (16,025) dollars, with interest thereon at the rate of four per cent per annum from July 1st, 1902, to the date of payment;

2. Instead of the fifth installment of seventeen thousand three hundred and seven (17,307) dollars, the sum of sixteen thousand and twenty-five (16,025) dollars, together with interest thereon at the rate of four per cent per annum from July 1st, 1902, to the date of said payment;

3. Instead of the sixth installment of seventeen thousand nine hundred and forty-eight (17,948) dollars, the sum of sixteen thousand and twenty-five (16,025) dollars, together with interest thereon at the rate of four per cent per annum from July 1st, 1902, to the date of said payment;

4. Instead of the seventh installment of eighteen thousand five hundred and eighty-nine (18,589) dollars, the sum of sixteen thousand and twenty-five (16,025) dollars, together with interest thereon at the rate of four per cent per annum from July 1st, 1902, to the date of said payment.

In case of payment of any or all of said fourth, fifth, sixth, or seventh installments on or before July 1st, 1902, the said deliveries of said deeds for the corresponding plots shall be made upon, and the said Union Trust Company is authorized to accept in payment therefor, and said party of the first part will accept in full satisfaction therefor, the payments as follows:

1. Instead of the fourth installment of sixteen thousand six hundred and sixty-six (16,666) dollars, the sum of sixteen thousand and twenty-five (16,025) dollars;

2. Instead of the fifth installment of seventeen thousand three hundred and seven (17,307) dollars, the sum of sixteen thousand and twenty-five (16,025) dollars;

3. Instead of the sixth installment of seventeen thousand nine hundred and forty-eight (17,948) dollars, the sum of sixteen thousand and twenty-five (16,025) dollars;

4. Instead of the seventh installment of eighteen thousand five hundred and eighty-nine (18,589) dollars, the sum of sixteen thousand and twenty-five (16,025) dollars.

All payments to be made under this contract shall be made in gold coin of the United States of America.

The party of the second part shall pay all taxes levied upon all of the said real property for the present fiscal year, and all taxes and assessments and all assessments or liens for street work which shall be levied on, or become a lien upon, all of the said real property during the continuance of this agreement, and shall also pay, sustain, and bear all expenses which are or may become due, to the Union Trust Company for all its services in connection with this agreement during the continuance of this agreement, and in the event that any of the said taxes, assessments or liens for street work levied against any of the said property, or any portion thereof, for which said party of the second part shall not have paid and received, or become entitled to receive, delivery of a deed as hereinbefore provided, shall be allowed to become delinquent during the continuance of this agreement, it shall be optional for the party of the first part to pay the same, and the amount of any or all such payments shall be payable by the party of the second part to the party of the first part, with interest at the rate of eight per cent per annum until payment thereof, and upon the failure of the party of the second part to repay the same within six months after written notice requiring said payment, the party of the first part may, at her option, annul the said contract as to all portions of the said property for which said party of the second part shall not then have already received, or become entitled to receive, a conveyance or conveyances.

The party of the second part shall be let into possession and occupancy of all of the said real property and all of the said seven several plots immediately upon the execution of this agreement, and shall have the right to cultivate and use the whole thereof for such purposes as it may deem best during the continuance of this agreement, but shall not erect or cause to be erected any permanent buildings or structures upon any plot for which it shall not at the time of such erection have received or become entitled to receive delivery of a conveyance, and shall not cause the oak trees at present standing on the said plot number six (6) to be cut down, destroyed, or in any way impaired until it shall have received, or become entitled to receive, delivery of the deed of conveyance of the said plot number six (6).

Said party of the second part shall, during the continuance of this agreement, and at all times until it shall have become entitled to receive deeds of conveyance to all of said property, pay, sustain, and bear, at its own cost and charge, all expenses of every kind and nature connected with the possession, occupancy, or use of said premises, and shall, during the same time, save the party of the first part harmless and indemnified against all liability to any and all persons for any and all damage or damages to person or property arising out of the possession, use, or occupancy of said property, and shall, at its own proper cost and charges, defend all actions and suits which may be brought by any person or persons, for or by reason of any matter or thing connected with the possession, occupancy, or use of said premises.

Upon the default or failure of the party of the second part to make payment of all or any of the said installments for the period of six months after their respective dates of maturity, the said Union Trust Company shall, at the option of the party of the first part, her heirs or assigns, return and surrender to the said party of the first part, her heirs or assigns, to be canceled, all of the said deeds which the party of the second part shall not then have received or become entitled to receive, and in that event the party of the second part shall, within three months after receiving from the party of the first part written notice requiring it so to do, surrender to the party of the first part all of the said real property for which it shall not then have received or become entitled to receive a deed or deeds, in the same condition and state of curbs and grades of streets and otherwise as when the party of the second part was let into possession of the same; but the title to all and every plot and plots for which a deed or deeds shall then have been delivered to the party of the second part pursuant to this agreement shall never-

theless vest in the party of the second part and in the State of California in fee simple absolute.

It is hereby agreed that all the agreements, stipulations, and covenants herein set forth shall and do apply to and bind the heirs, executors, administrators, successors and assigns of the respective parties herein mentioned.

For the purpose of further assuring and confirming to the party of the second part the title to all the property hereinbefore described, and also all other real property included within the exterior boundary lines of the map first hereinbefore mentioned and hereto attached in or to which the party of the first part, or the heirs of William F. Hillegass, deceased, have any claim, right, title, or interest, the said party of the first part has also executed and acknowledged, and procured to be also executed and acknowledged, by George Hillegass, Louise Hillegass, Norma Hillegass, and Elmire Hillegass, a quitclaim deed, numbered eight (8), to the party of the second part, of and to all that portion of the said plot number seventy-one (71) of the V. & D. Peralta Rancho, lying between the northerly line of Bancroft Way on the south and having for its northerly boundary the southerly line of the lands of the University of California, as the said southerly line is described in a certain deed made by William Hillegass and Eugenie Hillegass to the President and Board of Trustees of the College of California, dated September 4, 1860, and recorded in the office of the said Recorder of Alameda County, on December 12, 1865, in Liber T of Deeds, page 189; said quitclaim deed also containing a release and relinquishment, by the parties thereto of the first part to the party thereto and hereto of the second part, of all the right, title, and interest of the parties thereto of the first part of, in, or to all of the water rights attached to or appurtenant to the property therein described and all water rights reserved by and to the grantors in the said deed of William F. Hillegass and Eugenie Hillegass; and the said party of the first part has also delivered the said quitclaim deed to and deposited the same with the said Union Trust Company in escrow, to be delivered by the said Union Trust Company to the said party simultaneously with the delivery of the deed of and to the said plot numbered seven (7), when the party of the second part shall have made the payment entitling it to the delivery of the deed of and to said plot numbered seven (7), and not before or otherwise.

This agreement is executed in triplicate, one copy being retained by the party of the first part, one copy by the party of the second part, and one copy being delivered to and deposited with the said Union Trust Company.

IN WITNESS WHEREOF, the party of the first part has hereunto set her hand and seal, and the party of the second part, being thereunto duly authorized, has caused its corporate name to be subscribed and its corporate seal to be attached hereto, the day and year first above written.

UNION TRUST COMPANY OF SAN FRANCISCO, a corporation, hereby acknowledges that it has this day received from Marie Hillegass, the party of the first part named in the foregoing agreement, the seven several deeds of grant, numbered in numerical order from one (1) to seven (7), both numbers inclusive, mentioned and described in the said foregoing agreement, and also the quitclaim deed numbered (8), therein also mentioned and described, and for and in consideration of the sum of one dollar to it paid, and for other good and valuable considerations, the said Union Trust Company agrees with the said Marie Hillegass, and with the said Regents of the University of California, the party of the second part to the said agreement, that said Union Trust Company will hold the said deeds in escrow in accordance with the terms of the said agreement and will deliver the same to the said party thereto of the second part in accordance with the terms and conditions of the said agreement and not otherwise, and that upon the payment to it by the party of the second part of any or all of the installments in said agreement mentioned, it will immediately pay the same over to the said Marie Hillegass, her heirs, executors, administrators, or assigns, without any deduction therefrom for its services or expenses of collection, but will look only to the said party of the second part for the payment of any charges for such services or expenses. Said Union Trust Company further agrees with the said Marie Hillegass that upon the failure or default of the party of the second part in said agreement to make all or any of the payments therein mentioned for the period therein specified, it will,

upon the request of the said Marie Hillegass, her heirs, executors, administrators, or assigns, return to the said Marie Hillegass, her heirs, executors, administrators, or assigns, without recording or permitting the same to be recorded, all or any of the said deeds for which payments shall not then have been made in accordance with the terms of the said agreement.

IN WITNESS WHEREOF, said Union Trust Company has hereunto caused its corporate name to be subscribed and its corporate seal to be attached hereto, this — day of —, 1900, by its —, thereunto daily authorized.

Resolved, further, That the Finance Committee of the Board of Regents is authorized to draw on the Treasurer of the University of California, for each and all the amounts named in the above agreement, upon receiving from J. B. Mhoon, Counsel of the Board of Regents, or from A. F. Morrison, acting for J. B. Mhoon, a certificate to the effect that the title to said property is in Marie Hillegass.

[Adopted, on a call of the ayes and noes, October 9, 1900.]

(Eugenie E. Meyer.)

Regent Rodgers offered the following resolutions:

1. *Resolved,* That this corporation, The Regents of the University of California, shall and will purchase from Eugenie E. Meyer, wife of J. Henry Meyer, the following described property, to wit:

All that certain lot, piece, or parcel of land, situate, lying, and being in the Town of Berkeley, County of Alameda, State of California, and bounded and particularly described as follows, to wit: Beginning at the intersection of the west line of College Avenue (formerly called Audubon Street and sometimes called College Street) with the south line of the land of the State University of California, and running thence south, 4° 41' east, along the west line of said College Avenue, three hundred and twenty-seven and seventy-six one hundredths (327.76) feet to the center of Sylvan Way; thence westerly along the center of said Sylvan Way, curving to the left with eight hundred and sixty-six feet radius, two hundred and eleven (211) feet; thence north, 27° 45' west, two hundred and forty-three (243) feet to the south line of the land of said State University; thence north, 62¼° east, along said line three hundred and thirty-two (332) feet to the place of beginning; containing one and fifty-four one hundredths (1.54) acres, exclusive of the one-half of said Sylvan Way, and being a part of the Hillegass Estate situated in plot number seventy-one (71) of the V. & D. Peralta Rancho, for the price or sum of twenty-two thousand five hundred dollars (\$22,500), payable in cash and promissory notes as follows: Upon receiving from the said Eugenie E. Meyer a grant, bargain, and sale deed to the said property executed by the said Eugenie E. Meyer and J. Henry Meyer, her husband, this corporation shall and will pay to the said Eugenie E. Meyer, in cash, the sum of three thousand five hundred and sixty and twenty-three one hundredths dollars (\$3,560.23), and shall execute and deliver to the said Eugenie E. Meyer its six several promissory notes in the form set forth at the end of this resolution, which notes shall be executed by the President of the University of California, and the Secretary of this corporation, who are hereby authorized to sign the said notes on behalf of this corporation, and to attach the seal of this corporation thereto.

\$3,560.23.

SAN FRANCISCO, —, 1900.

For value received, The Regents of the University of California, a corporation, promises to pay to Eugenie E. Meyer, or order, on the first day of July, 1901, three thousand five hundred and sixty and twenty-three one hundredths (3,560.23) dollars, in gold coin of the government of the United States, at the office of Ant. Borel & Co., in this city. Privilege reserved of making partial or total payments before maturity.

\$3,560.23.

SAN FRANCISCO, —, 1900.

For value received, The Regents of the University of California, a corporation, promises to pay to Eugenie E. Meyer, or order, on the first day of July, 1902, three thousand five hundred and sixty and twenty-three one hundredths (3,560.23) dollars, in gold coin of the government of the United States, at the office of Ant. Borel & Co., in this city. Privilege reserved of making partial or total payments before maturity.

\$3,560.23.

SAN FRANCISCO, —, 1900.

For value received, The Regents of the University of California, a corporation, promises to pay to Eugenie E. Meyer, or order, on the first day of July, 1903, the sum of three thousand five hundred and sixty and twenty-three one hundredths (3,560.23) dollars, at the office of Ant. Borel & Co., in this city, with interest from and after July 1st, 1902, at the rate of four per cent per annum from the last mentioned date, payable annually; all payments of principal and interest to be made only in gold coin of the United States. Privilege reserved of making partial or total payments before maturity.

\$2,848.00.

SAN FRANCISCO, —, 1900.

For value received, The Regents of the University of California, a corporation, promises to pay to Eugenie E. Meyer, or order, on the first day of July, 1904, the sum of two thousand eight hundred and forty-eight (2,848) dollars, at the office of Ant. Borel & Co., in this city, with interest from and after July 1st, 1902, at the rate of four per cent per annum from the last mentioned date, payable annually; all payments of principal and interest to be made only in gold coin of the government of the United States. Privilege reserved of making partial or total payments before maturity.

\$2,848.00.

SAN FRANCISCO, —, 1900.

For value received, The Regents of the University of California, a corporation, promises to pay to Eugenie E. Meyer, or order, on the first day of July, 1905, the sum of two thousand eight hundred and forty-eight (2,848) dollars, at the office of Ant. Borel & Co., in this city, with interest from and after July 1st, 1902, at the rate of four per cent per annum from the last mentioned date, payable annually; all payments of principal and interest to be made only in gold coin of the government of the United States. Privilege reserved of making partial or total payments before maturity.

\$2,563.08.

SAN FRANCISCO, —, 1900.

For value received, The Regents of the University of California, a corporation, promises to pay to Eugenie E. Meyer, or order, on the first day of July, 1906, the sum of two thousand five hundred and sixty-three and eight one hundredths (2,563.08) dollars, at the office of Ant. Borel & Co., in this city, with interest from and after July 1st, 1902, at the rate of four per cent per annum from the last mentioned date, payable annually; all payments of principal and interest to be made only in gold coin of the government of the United States. Privilege reserved of making partial or total payments before maturity.

And the Finance Committee of the Board of Regents is hereby authorized to draw on the Treasurer of the University of California for each and all the amounts named in the above resolution, upon receiving from J. B. Mhoon, Counsel of the Board of Regents, or A. F. Morrison, acting for J. B. Mhoon, a certificate to the effect that the title to said property is in Eugenie E. Meyer.

(William F. Hillegass.)

2. *Resolved*, That this corporation, the Regents of the University of California, shall and will purchase from William F. Hillegass the following described property, to wit:

All that certain lot, piece, or parcel of land situate, lying, and being in the town of Berkeley, County of Alameda, State of California, bounded and particularly described as follows, to wit: Beginning at a point on the south line of the land of the State University of California, distant south, $62\frac{1}{4}^{\circ}$ west, three hundred and thirty-two (332) feet from the west line of College Avenue (formerly called Audubon Street and sometimes called College Street), said point being the northwest corner of a certain lot conveyed to Eugenie E. Meyer by Marie Hillegass and others by deed dated the 24th day of January, 1889, and running thence south, $27\frac{3}{4}^{\circ}$ east, two hundred and forty-three (243) feet to the center of Sylvan Way; thence westerly along the center of said Sylvan Way, curving to the left with eight hundred and sixty-six feet radius, one hundred and forty-one and eighty one hundredths (141.80) feet to the end of curve; thence on tangent south, $62\frac{1}{4}^{\circ}$ west, one hundred and eighty-nine and fifty one hundredths (189.50) feet; thence north, $27\frac{3}{4}^{\circ}$ west, two hundred and thirty (230) feet to the south line of

the land of said State University; thence north, $62\frac{1}{4}^{\circ}$ east, along said line, three hundred and thirty-one (331) feet to the place of beginning; containing one and fifty-four one hundredths (1.54) acres, exclusive of one half of said Sylvan Way, and being a part of the Hillegass Estate, situated in plot number seventy-one of the V. & D. Peralta Rancho; for the price or sum of fifteen thousand five hundred dollars (\$15,500), payable in cash and promissory notes in the manner following: Upon receiving from the said William F. Hillegass a grant, bargain, and sale deed to the said property, executed by the said William F. Hillegass, this corporation shall and will pay to the said William F. Hillegass, in cash, the sum of two thousand four hundred and fifty-two and fifty-three one hundredths (\$2,452.53) dollars, and shall execute and deliver to the said William F. Hillegass its six several promissory notes in the forms set forth at the end of this resolution, which notes shall be executed by the President of the University of California, and the Secretary of this corporation, who are hereby authorized to sign the said notes on behalf of this corporation and to attach the seal of this corporation thereto.

\$2,452.53.

SAN FRANCISCO, ———, 1900.

For value received, The Regents of the University of California, a corporation, promises to pay to William F. Hillegass, or order, on the first day of July, 1901, the sum of two thousand four hundred and fifty-two and fifty-three one hundredths (2,452.53) dollars, in gold coin of the government of the United States, at the office of Ant. Borel & Co., in this city. Privilege reserved of making partial or total payments before maturity.

\$2,452.53.

SAN FRANCISCO, ———, 1900.

For value received, The Regents of the University of California, a corporation, promises to pay to William F. Hillegass, or order, on the first day of July, 1902, the sum of two thousand four hundred and fifty-two and fifty-three one hundredths (2,452.53) dollars, in gold coin of the government of the United States, at the office of Ant. Borel & Co., in this city. Privilege reserved of making partial or total payments before maturity.

\$2,452.53.

SAN FRANCISCO, ———, 1900.

For value received, The Regents of the University of California, a corporation, promises to pay to William F. Hillegass, or order, on the first day of July, 1903, the sum of two thousand four hundred and fifty-two and fifty-three one hundredths (2,452.53) dollars, at the office of Ant. Borel & Co., in this city, with interest from and after July 1st, 1902, at the rate of four per cent per annum from the last mentioned date, payable annually; all payments of principal and interest to be made only in gold coin of the government of the United States. Privilege reserved of making partial or total payments before maturity.

\$1,962.03.

SAN FRANCISCO, ———, 1900.

For value received, The Regents of the University of California, a corporation, promises to pay to William F. Hillegass, or order, on the first day of July, 1904, the sum of nineteen hundred and sixty-two and three one hundredths (1,962.03) dollars, at the office of Ant. Borel & Co., in this city, with interest from and after July 1st, 1902, at the rate of four per cent per annum from the last mentioned date, payable annually; all payments of principal and interest to be made only in gold coin of the government of the United States. Privilege reserved of making partial or total payments before maturity.

\$1,962.03.

SAN FRANCISCO, ———, 1900.

For value received, The Regents of the University of California, a corporation, promises to pay to William F. Hillegass, or order, on the first day of July, 1905, the sum of nineteen hundred and sixty-two and three one hundredths (1,962.03) dollars, at the office of Ant. Borel & Co., in this city, with interest from and after July 1st, 1902, at the rate of four per cent per annum from the last mentioned date, payable annually; all payments of principal and interest to be made only in gold coin of the government of the United States. Privilege reserved of making partial or total payments before maturity.

\$1,765.82.

SAN FRANCISCO, —, 1900.

For value received, The Regents of the University of California, a corporation, promises to pay to William F. Hillegass, or order, on the first day of July, 1906, the sum of seventeen hundred and sixty-five and eighty-two one hundredths (1,765.82) dollars, at the office of Ant. Borel & Co., in this city, with interest from and after July 1st, 1902, at the rate of four per cent per annum, from the last mentioned date, payable annually; all payments of principal and interest to be made only in gold coin of the government of the United States. Privilege reserved of making partial or total payments before maturity.

And the Finance Committee of the Board of Regents is authorized to draw on the Treasurer of the University of California for each and all the amounts named in the above resolution upon receiving from J. B. Mhoon, Counsel of the Board of Regents, or from A. F. Morrison, acting for J. B. Mhoon, a certificate to the effect that the title to said property is in William F. Hillegass.

(Alice Hillegass.)

3. *Resolved*, That this corporation, The Regents of the University of California, shall and will purchase from Alice Hillegass, for the sum of twenty-five hundred dollars, the following described property, to wit:

All those certain lots, pieces, or parcels of land, situate, lying, and being in the Town of Berkeley, County of Alameda, State of California, bounded and particularly described as follows, to wit:

First—Beginning at a point situate on the westerly line of College Avenue (formerly called Audubon Street, and sometimes called College Street), distant thereon one hundred (100) feet southerly from the point of intersection of the southerly line of Sylvan Way with the westerly line of said College Avenue or Street; running thence southerly along the said westerly line of said College Avenue fifty (50) feet to the northeasterly corner of a lot of land conveyed by the said Alice Hillegass to Charles H. Sawyer by deed dated May 16, 1895, and recorded in the office of the County Recorder of the said County of Alameda on May 29, 1895, in Liber 568 of Deeds, page 445; thence westerly along the northerly line of said last mentioned lot two hundred and nine and ninety one hundredths (209.90) feet to the easterly boundary line of a tract of land of thirteen and thirty-three one hundredths (13.33) acres conveyed to Marie Hillegass by William F. Hillegass and others by deed dated the 24th day of January, 1889, and recorded in said County Recorder's office on the 17th day of May, 1889, in Liber 372 of Deeds, page 97; thence northerly along said easterly boundary line of said tract of thirteen and thirty-three one hundredths (13.33) acres forty-nine and eighty-two one hundredths (49.82) feet, more or less, to the southwesterly corner of a lot of land which was conveyed by said Alice Hillegass to Reuben Rickard by deed dated April 8, 1895, and recorded in said County Recorder's office on April 11, 1895, in Liber 568 of Deeds, page 197; thence easterly along the southerly boundary line of said last mentioned lot two hundred and fourteen and twelve one hundredths (214.12) feet, more or less, to the said westerly line of College Avenue, at the point or place of beginning.

Second—Beginning at a point on the westerly line of said College Avenue, distant thereon three hundred and twenty-seven and seventy-six one hundredths (327.76) feet southerly from the point of intersection of the said westerly line of College Avenue with the southerly line of the lands of the State University of California, the said commencement point being in the center of a strip of land about sixty (60) feet in width, sometimes called Sylvan Way; running thence westerly and southerly along the center of said Sylvan Way in a line curving to the west and south (which said curved line is a segment of a circle having a radius of eight hundred and sixty-six feet) and continuing along said curved line two hundred and nineteen (219) feet to the northwest corner of lands conveyed to said Alice Hillegass by Marie Hillegass and others by deed dated February 8, 1889, and recorded in the office of the County Recorder of Alameda County on May 14, 1889, in Liber 373 of Deeds, page 52, said point being also a common corner of said lands so conveyed to Alice Hillegass and the said tract of thirteen and thirty-

three one hundredths (13.33) acres conveyed to Marie Hillegass by the said deed from William F. Hillegass and others, recorded in said Recorder's office in Liber 372 of Deeds, page 97; thence southerly along the easterly line of the said tract of thirteen and thirty-three one hundredths (13.33) acres, thirty (30) feet, more or less, to the southerly line of said Sylvan Way, at the northwesterly corner of a lot of land conveyed by the said Alice Hillegass to Reuben Rickard by deed dated the 13th day of March, 1895, and recorded in the said County Recorder's office on the 22d day of March, 1895, in Liber 563 of Deeds, page 95; thence easterly along the southerly line of said Sylvan Way, and along the northerly line of said lot conveyed to said Rickard as last aforesaid, to the westerly line of said College Avenue; and thence northerly along said College Avenue thirty (30) feet, more or less, to the said center of Sylvan Way at the point or place of beginning.

Third—Also all the estate, right, title, and interest of the said party of the first part in and to all that portion of plot number seventy-one (71) of the V. & D. Peralta Rancho, sometimes called or known as Sylvan Way.

And the Finance Committee of the Board of Regents is authorized to draw on the Treasurer of the University of California for the said sum of twenty-five hundred dollars upon receiving from J. B. Mhoon, Counsel of the Board of Regents, or from A. F. Morrison, acting for J. B. Mhoon, a certificate to the effect that the title to said property is in Alice Hillegass.

[Resolutions adopted, on call of the ayes and noes, October 9, 1900.]

Regent Rodgers offered the following:

Resolved, That in consideration of the Union Trust Company of San Francisco consenting to act as depositary under the said agreement which has been adopted, without compensation, this corporation does hereby hold said Union Trust Company harmless from any loss or liability which it may suffer hereafter on account thereof, and does further agree to execute and deliver at any time, upon demand, such writings as said company may deem necessary to carry this agreement of indemnity into effect.

[Adopted, October 9, 1900.]

(Pacific Theological Seminary.)

Regent Rodgers moved that the sum of \$17,580, and accrued interest from ———, be appropriated for the purchase, from the Pacific Theological Seminary, of so much of the Hillegass tract as belongs to that institution. [Carried, on a call of the ayes and noes, April 19, 1901.]

On a call of the ayes and noes, the President of the University and the Finance Committee were authorized to conclude negotiations for the purchase of the Pacific Theological Seminary lot in the Hillegass tract by the payment of \$17,250.28, with accrued interest from date of statement submitted February 4, 1901, together with taxes for the current year and assessment for grouting gutters on Bancroft Way. [June 28, 1901.]

CHARLES M. HITCHCOCK ENDOWMENT.

Counsel Mhoon submitted the following:

In the Matter of the Charles M. Hitchcock Legacy.

SAN FRANCISCO, September 18, 1900.

To the Honorable Board of Regents of the University of California,

GENTLEMEN: I take occasion to call the attention of the Honorable Board to the legacy bequeathed by said Hitchcock to the University of California for certain specific

purposes. This legacy is not effective during the life of Mrs. Howard Coit, the daughter of decedent.

Mr. John H. Wise, the surviving executor of said will, has stated to me that Mrs. Coit is desirous of making a settlement of this bequest in connection with a similar settlement with the University of Maryland. It will be necessary that the University of Maryland and the University of California shall both agree to the proposed settlement.

I therefore suggest that a committee be appointed to negotiate with Mrs. Coit and the University of Maryland to determine whether it is desirable to make any settlement before Mrs. Coit's death, and if so, the nature and terms of such settlement.

I am informed that the residuum to be divided between the two universities will amount to about \$22,000, and inasmuch as Mrs. Coit intends to leave the State of California for an extended European trip, it is desirable some action should be taken as soon as may be convenient.

[Referred to special committee, with power, September 18, 1900.]

Regent Wallace, on behalf of the special committee appointed to consider the desirability of making an immediate settlement in the matter of the legacy bequeathed by the late Charles M. Hitchcock, recommended the adoption of the following resolution:

Be it resolved by the Regents of the University of California, That it is for the best interests of said University to sell and convey all the remainder or reversion in fee simple of said University in and to all of the property of the estate of Charles M. Hitchcock, deceased, situated in the City and County of San Francisco, State of California; in the County of Napa, State of California; in the counties of Macon and Graham, State of North Carolina; and near Cold Springs, in San Jacinto County, State of Texas; or elsewhere situated, which said University is or may become entitled to under and by virtue of the last will and testament of said decedent, which said last will and testament was admitted to probate by the Superior Court of the State of California in and for the County of Napa, on the 27th day of April, A. D. 1885; and be it further

Resolved, That whereas, Eliza W. Coit, of the City and County of San Francisco, State of California, has offered the said Regents the sum of seven thousand five hundred (7,500) dollars for said property, Henry T. Gage, President, and W. A. McKowen, Acting Secretary, of said Regents of the University of California, be and they are hereby authorized and directed to make, execute, acknowledge, and deliver to the said Eliza W. Coit, for and on behalf of the Regents of the University of California, and as its act and deed, a grant, bargain, and sale deed of conveyance of all of the remainder or reversion in fee simple of said University in and to all of said property, and said Acting Secretary is hereby authorized and directed to affix its corporate seal thereto.

[Adopted, on a call of the ayes and noes, April 9, 1901.]

The Board then approved the following form of deed:

This indenture, made this 10th day of April, in the year of our Lord one thousand nine hundred and one, by and between The Regents of the University of California, party of the first part, and Eliza W. Coit, of the City and County of San Francisco, State of California, party of the second part,

Witnesseth: That whereas, Charles M. Hitchcock died in the County of Napa, State of California, on or about the 3d day of April, A. D. 1885, and left a last will and testament, which was, on the 27th day of April, 1885, admitted to probate by the Superior Court of the State of California in and for the County of Napa, as the last will and testament of said decedent;

And whereas, said decedent did, by said last will, after making, upon certain conditions, certain bequests and devises, give, devise, and bequeath, upon certain contingencies, certain property unto the executors or trustees named in said will, in trust for the

benefit of the University of California, to establish a professorship in the University of California, for free lectures upon scientific and practical subjects, but not for the advantage of any religious sect, nor upon political subjects;

And whereas, The Regents of the University of California, the party of the first part, duly assembled, did, on the 9th day of April, A. D. 1901, duly pass resolutions, of which the following are copies, to wit:

"Be it resolved by the Regents of the University of California, That it is for the best interests of said University to sell and convey all the remainder or reversion in fee simple of said University in and to all of the property of the estate of Charles M. Hitchcock, deceased, situated in the City and County of San Francisco, State of California; in the County of Napa, State of California; in the counties of Macon and Graham, State of North Carolina; and near Cold Springs, in San Jacinto County, State of Texas; or elsewhere situated, which said University is or may become entitled to under and by virtue of the last will and testament of said decedent, which said last will and testament was admitted to probate by the Superior Court of the State of California in and for the County of Napa, on the 27th day of April, A. D. 1885; and be it further

"Resolved, That whereas, Eliza W. Coit, of the City and County of San Francisco, State of California, has offered the said Regents the sum of seven thousand five hundred (7,500) dollars for said property, Henry T. Gage, President, and W. A. McKowen, Acting Secretary, of said Regents of the University of California, be and they are hereby authorized and directed to make, execute, acknowledge, and deliver to the said Eliza W. Coit, for and on behalf of the Regents of the University of California, and as its act and deed, a grant, bargain, and sale deed of conveyance of all of the remainder or reversion in fee simple of said University in and to all of said property, and said Acting Secretary is hereby authorized and directed to affix its corporate seal thereto."

Now, therefore, in pursuance of said resolution, and in consideration of the sum of seven thousand five hundred dollars, lawful money of the United States of America, paid to the party of the first part by the party of the second part, the receipt whereof is hereby acknowledged, the party of the first part doth by these presents grant, bargain and sell, convey and confirm, unto the party of the second part, her heirs and assigns forever, the remainder or reversion in fee simple in all and to all of the property of the estate of said Charles M. Hitchcock, deceased, situated in the City and County of San Francisco, State of California; in the County of Napa, State of California; in the counties of Macon and Graham, State of North Carolina; and near Cold Springs, in the County of San Jacinto, State of Texas; or elsewhere situated, which the said University of California is or may become entitled to under and by virtue of the said last will and testament of said decedent.

Together with all and singular the tenements, hereditaments, and appurtenances thereunto belonging or in anywise appertaining, at present or in expectancy, and the reversion and reversions, remainder and remainders, issues and profits thereof.

To have and to hold the same unto and to the use of the said party of the second part, her heirs and assigns forever, to the intent that she may henceforth be seized of and entitled to the fee simple and inheritance possession thereof.

In witness whereof, the party of the first part, by resolution, as aforesaid, has caused these presents to be subscribed by its President and Acting Secretary, and its corporate name and seal to be hereunto affixed, the day and year first above written.

FLOOD ENDOWMENT.

Right of Way Granted to Standard Electric Company.

The Committee on the Flood Endowment reported as follows:

Your Committee on the Flood Endowment, to which was referred the application of the Standard Electric Company of California for a right of way over the lands of the University known as the Flood Estate, in the County of San Mateo, State of California, recommends to your Honorable Board the adoption of the following resolution:

Resolved, That the Regents of the University of California authorize the Standard

Electric Company of California, a corporation, to erect and maintain through the lands of the University, known as the Flood Estate, situated in the County of San Mateo, State of California, two lines of poles, with the necessary wires, conductors, appliances, connections, and fastenings, for the transmission of electricity. The said poles shall be of any suitable material and form, and shall be erected and maintained by the said company, subject at all times to the direction and approval of the Regents, in a straight line along the northeast fence, as the said fence now exists, separating the salt pasture from the salt marsh of the said estate.

This authority is understood to be a license, revocable at the pleasure of the Regents, upon written notice of sixty days given by the Regents to the said company or to any agent or employé thereof. In the event of revocation the said company shall immediately remove from the said lands all of the said poles, wires, conductors, appliances, connections, and fastenings, and shall immediately restore the said lands, as near as can be done, to their present condition.

This license is conferred upon the condition that the said company shall be liable for and shall pay to the Regents, their tenants or employés, all damages of every kind which may be caused to or suffered by the Regents, their tenants or employés, as the case may be, and shall hold the Regents, their tenants or employés, as the case may be, harmless from all damages of every kind which may be caused or suffered in any way, by reason, in any manner whatsoever, of the erection or maintenance of the said poles, wires, conductors, appliances, connections, or fastenings.

Should any accident occur to the said poles, wires, conductors, appliances, connections, or fastenings, which, in the opinion of the Regents, or their agents or employés, is liable to cause injury to person or property upon the said lands, then the Regents, or their employés, may immediately use such means, even to the destruction of the said poles, wires, conductors, appliances, connections, or fastenings, as in their opinion may prevent or lessen such injury, without liability to the said company therefor.

This license shall include permission to the said company, by its agents and employés, to enter upon the said lands, but solely for the purpose of erecting, maintaining, altering, repairing, and inspecting the said poles, wires, conductors, appliances, connections, and fastenings.

This license shall take effect when the terms and conditions thereof shall be assented to and accepted by the said company by resolution duly adopted by the Board of Directors thereof, and a copy of such resolution, certified by the Secretary of the said company to be a full, true, and correct copy of such resolution, shall have been received by and filed in the office of the Secretary of the Regents. Such resolution shall be in the following form:

"WHEREAS, The Regents of the University of California have adopted a resolution in the words following, to wit:

"*Resolved*, That the Regents of the University of California authorize the Standard Electric Company of California, a corporation, to erect and maintain, through the lands of the University, known as the Flood Estate, situated in the County of San Mateo, State of California, two lines of poles, with the necessary wires, conductors, appliances, connections, and fastenings, for the transmission of electricity. The said poles shall be of any suitable material and form, and shall be erected and maintained by the said company, subject at all times to the direction and approval of the Regents, in a straight line along the northeast fence, as the said fence now exists, separating the salt pasture from the salt marsh of the said estate.

"This authority is understood to be a license, revocable at the pleasure of the Regents, upon written notice of sixty days given by the Regents to the said company, or to any agent or employé thereof. In the event of revocation the said company shall immediately remove from the said lands all of the said poles, wires, conductors, appliances, connections, and fastenings, and shall immediately restore the said lands, as near as can be done, to their present condition.

"This license is conferred upon the condition that the said company shall be liable for and shall pay to the Regents, their tenants or employés, all damages of every kind which may be caused to or suffered by the Regents, their tenants or employés, as the case may be, and shall hold the Regents, their tenants or employés, as the case may be,

harmless from all damages of every kind which may be caused or suffered in any way by reason, in any manner whatsoever, of the erection or maintenance of the said poles, wires, conductors, appliances, connections, or fastenings.

“Should any accident occur to the said poles, wires, conductors, appliances, connections, or fastenings, which, in the opinion of the Regents, or their agents or employes, is liable to cause injury to person or property upon the said lands, then the Regents, or their employes, may immediately use such means, even to the destruction of the said poles, wires, conductors, appliances, connections, or fastenings, as in their opinion may prevent or lessen such injury, without liability to the said company therefor.

“This license shall include permission to the said company, by its agents and employes, to enter upon the said lands, but solely for the purpose of erecting, maintaining, altering, repairing, and inspecting the said poles, wires, conductors, appliances, connections, and fastenings.

“This license shall take effect when the terms and conditions thereof shall be assented to and accepted by the said company by resolution duly adopted by the Board of Directors thereof, and a copy of such resolution, certified by the Secretary of the said company to be a full, true, and correct copy of such resolution, shall have been received by and filed in the office of the Secretary of the Regents.’

“Now, therefore, be it

Resolved, That this corporation, in consideration of the license conferred upon this corporation by the said resolution, do hereby assent to and accept the terms and conditions of the said license; and be it further

Resolved, That the Secretary of this corporation be and he is hereby directed to transmit to the Secretary of the Regents of the University of California a copy of this resolution, certified, under the seal of this corporation, to be a full, true, and correct copy of this resolution.”

[Approved, March 12, 1901.]

BONDS OF BEAR GULCH WATER COMPANY.

Bear Gulch Water Company's Books to be Examined.

Regent Rodgers moved that the Finance Committee be authorized to employ an expert to examine the books of the Bear Gulch Water Company, to ascertain the amount of indebtedness incurred for which bonds have been issued, as well as for all other purposes. [Carried, March 12, 1901.]

Finance Committee Authorized to Purchase Bear Gulch Water Company Bonds.

Regent Rodgers moved that the Finance Committee of the Board of Regents be authorized to invest so much of the funds under their control as may be necessary to acquire four fifths of the proposed bonded issue of the Bear Gulch Water Company for indebtedness incurred since the Regents acquired the stock in said company. [Carried, on a call of the ayes and noes, March 12, 1901.]

SUMMER SCHOOL.

President Wheeler moved that the arrangement for the maintenance of the Summer School, which was adopted by the Regents for the last summer, be continued for the next summer, with the addition that the Regents guarantee payment of salaries up to \$4,500. [Carried, September 12, 1900.]

Art Lectureship.

President Wheeler reported as follows:

I have the pleasure of announcing that through the generosity of one who has been our friend in so many ways, one of the Regents, we are able to have this year a lectureship on History of Art.

This lectureship will be filled by Professor Louis Dyer, of Oxford, England.

[In Board, September 18, 1900.]

DUPLICATE DIPLOMAS.

President Wheeler submitted the following recommendation: That the issuance of a duplicate diploma for the degree of Master of Arts, conferred upon Gardner F. Williams in 1892, be authorized, provided it is found upon investigation that Mr. Williams has never received the diploma, or that it has been lost or destroyed. [Carried, December 11, 1900.]

President Wheeler recommended that a duplicate diploma for the degree of Doctor of Medicine be issued to Dr. Frank Edward McCullough, the expense to be borne by Dr. McCullough. [Concurred in, December 11, 1900.]

President Wheeler recommended that the Secretary be authorized to issue a duplicate diploma of the degree of Bachelor of Science to Alfonso de Uruñuela of the class of 1899, and to David Goodale of the class of 1900, the expense to be borne by the recipients. [Concurred in, March 12, 1901.]

President Wheeler submitted a request from Frank D. Miller for the issuance of a duplicate diploma, the original having been lost or destroyed. [On motion, a duplicate diploma was authorized to be issued, June 28, 1901.]

GIFT BY WILLIAM R. HEARST.

President Wheeler recommended that a vote of thanks be extended to William R. Hearst for his gift of a collection of Greek and Egyptian antiquities. [Adopted, December 11, 1900.]

PHOEBE A. HEARST ARCHITECTURAL PLAN.

Regent Reinstein presented a report from the Trustees of the Phoebe Hearst Architectural Plan of the University of California, as follows:

Five years ago, almost to this very day, the suggestion of Mr. B. R. Maybeck was the inspiration for the beginning of a work whose completion in the Phoebe Hearst Architectural Plan of the University of California brings us here to-day.

On behalf of my fellow-trustees, ex-Governor Budd, representing the State of California, and Professor William Carey Jones, representing the University, permit me to

read parts of the letter of Mrs. Hearst, dated October 22, 1896, appointing trustees for the obtainment of such plan, in order that you may gather therefrom, and from a brief recital of our labors in connection therewith, how far such labors have corresponded with the tenor of that letter; and with the further view that the Regents of the University may be able better to determine how far the results obtained should meet with their favor:

“October 22, 1896.

“ * * * I am deeply impressed with the proposition now before the Board of Regents, to determine upon a comprehensive and permanent plan for the buildings and grounds of the University of California, on the site at Berkeley, and I heartily approve of the idea. I feel now so imbued with the importance to the University and to the State of having such a plan, that I should be glad to aid in its complete and speedy realization. I may also say that I am the more anxious for this, as I have in contemplation the erection on the University grounds of two buildings, one of them to be a memorial which shall testify to Mr. Hearst's love for and interest in this State.

“I would therefore suggest that I be permitted to contribute the funds necessary to obtain, by international competition, plans for the fitting architectural improvement of the University grounds at Berkeley, and I desire to say that the success of this enterprise shall not be hampered in any way by a money consideration.

“I have only one wish in this matter,—that the plans adopted shall be worthy of the great University whose material home they are to provide for, that they should harmonize with, and even enhance, the beauty of the site whereon this home is to be built, and that they should redound to the glory of the State whose culture and civilization are to be nursed and developed at its University. * * *

(Signed:) PHOEBE A. HEARST.

In furtherance of this purpose, after several meetings with the Academic Council of the University, to obtain their ideas as to the requirements of an ideal university, Mr. Maybeck and one of the trustees went East, and there for several months consulted the presidents of all the large universities, and the leading educators of this country, to obtain their views as to the proper number and character of buildings required for a great university; and they conferred at the same time, either in assemblages at the Federated Art League of New York, or singly, with almost every distinguished architect, painter, sculptor, and landscape gardener of this country. Thereupon a similar mission was completed throughout Europe by Mr. Maybeck, who remained there for two years, and by one of the trustees, who made several trips with him, during which prominent architects, painters, sculptors, and landscape gardeners were consulted in England and Scotland, France, Germany, Italy, Holland, Belgium, Austria, Hungary, and Switzerland; and as a result of the consensus of opinion of the world of art on this subject, an international competition, open to all the architects of the world, was undertaken.

I do not propose to weary you with a recital of the work involved in such an international competition. Some hint of that labor may be obtained from the fact that it involved the issuance of a preliminary prospectus, and thereafter the programs and necessary material, which were distributed throughout the civilized world, literally from China to Peru; the sending of vast numbers of exact topographical maps and plaster of paris casts of the grounds of the University and its immediate neighborhood, photographs which were taken so as to give an accurate description of every feature of these grounds; the sending of over ten thousand copies of the program for the preliminary competition to every country in the world, and to every State in the Union, to be distributed from proper distributing points; the obtaining of a jury representing England, France, Germany, and the United States, composed of the most distinguished architects of those countries; a correspondence of over a hundred thousand letters and papers; and a cost which, though amply justified by the grandeur of the work undertaken, the satisfactory results obtained, the stimulus to architecture, and to those engaged in that noble profession all over the world, and the fame of this University which was thereby spread to every land, nevertheless so vastly exceeded the original estimates of its cost, that the trustees never would have had the hardihood to ask, and I sincerely believe never would have obtained such cost from any other human being

than the superb donor by whose aid this great work has been carried to what we hope is a successful completion.

You are all aware that the eleven architects selected in the preliminary competition, together with their partners, even where many of those firms were composed of three members, were brought to California; and the jurors and M. Benard, with their families, were afforded a similar opportunity, in order that a thorough, personal knowledge of the site of the University might aid in the preparation and selection of the best plan for the grounds and buildings of the great university that is to face forever the Golden Gate to the western sea.

As the final result of those labors, we have the plan which we now deliver to Mrs. Hearst, to be submitted by her for the careful consideration of this body.

I have referred to the matters preliminary to the obtaining of the plan, to show that no pains or care or cost has been spared; and, I may add, that it has been the universal opinion, voiced by Mr. Pascal, the representative of France, and the president of the jury of award, and publicly stated by him to Mrs. Hearst at the banquet given by her to the Burgomeister and principal officials of Antwerp, that this competition, in its execution and result, has been the best in the history of architecture, and that she had every reason to be satisfied with the result.

In closing what has been a labor of love to every one of her trustees in this behalf, I desire to refer to but one other matter, and that is, the constant care, the ceaseless attention, and the wide-eyed wisdom with which Mrs. Hearst has followed and aided our every effort at every stage. Conversant as is civilization with the grace and gentleness and generosity which have made her known wherever those virtues are honored, your trustees desire to express their constant wonder that amid an infinite number and variety of other duties, she has shown a mastery of the innumerable details of this international competition, a complete knowledge of its status at every point, and a wisdom and judgment exceeding even her generosity, and without which this successful result never could have been obtained.

On behalf of your trustees, I have the honor, Madam, of turning over to you the Phoebe Hearst Architectural Plan of the University of California, with the deep conviction and the earnest hope, which I know is echoed throughout the world of art and education, that if it be adopted by this Honorable Board, you will live to see gratified and carried out, in enduring marble, the wish of your letter, "that the plans adopted should be worthy of the great University whose material home they are to provide for; that they should harmonize with, and even enhance, the beauty of the site where this home is to be built, and that they should redound to the glory of the State whose culture and civilization are to be nursed and developed at its University."

J. B. REINSTEIN,

Chairman Trustees for the Phoebe Hearst Architectural
Plan of the University of California.

Regent Hearst responded as follows:

It is with sincere gratification that I accept, at the hands of the trustees, the complete plans of the greater University we all trust the near future may see.

And now, Mr. President and members of the Board of Regents, I submit these plans for your approval and, I hope, for your acceptance.

In thus severing my connection with the trustees, I desire to emphasize my appreciation of their intelligent, earnest, and enthusiastic work rendered individually and collectively, and I avail myself of this public opportunity to express my thanks to ex-Governor James H. Budd, Professor William Carey Jones, and Regent J. B. Reinstein.

After an examination of the plans, Regent Hellman offered the following:

Resolved, That this Board accepts the Phoebe Hearst Architectural Plans of the University of California.

[Unanimously adopted.]

Regent Houghton offered the following:

Resolved, That a committee of three be appointed to draft a suitable letter expressing to Regent Hearst the sincere appreciation and heart-felt gratitude of the Board for the great services rendered by her to the University of California in providing for it a magnificent architectural plan.

[Unanimously adopted.]

The Chair appointed Regents Barnes, Pardee, and Anderson as said committee. [December 14, 1900.]

Regent Reinstein offered the following:

Resolved, That with the view of perpetuating the Phœbe Hearst Architectural Plan of the University of California, and of obtaining their counsel and advice in the matter of the buildings to be constructed on the site of the University at Berkeley, the present jury of award, together with Charles F. McKim, Esq., Professor D. Despradelle, John M. Carrere, Esq., and John Galen Howard, Esq., be constituted a board of advisers, self-perpetuating, without the consent of a majority of whom no substantial alteration of the Phœbe Hearst Architectural Plan of the University of California shall be made; the Regents expressing herein the hope that the international character of the jury shall always be maintained.

[Carried, December 14, 1900.]

Regent Anderson offered the following:

Resolved, That the thanks of the Regents be extended to the members of the present jury of award, J. L. Pascal, Esq., R. Norman Shaw, Esq., Dr. Paul Wallot, Walter Cook, Esq., and J. B. Reinstein, Esq., for their aid constantly given in furtherance of the obtainment of the Phœbe Hearst Architectural Plan of the University of California, and that a copy of this resolution be forwarded to each member of the jury.

[Adopted, December 14, 1900.]

JANE K. SATHER ENDOWMENTS.

President Wheeler submitted the following communication:

SAN FRANCISCO, CAL., October 8, 1900.

To the Regents of the University of California,

GENTLEMEN: As a resident of the State of California, and one who is deeply interested in its welfare, I am desirous of encouraging and assisting the work of liberal education which is now being carried on by the University of California. For this purpose I offer you the following property:

Cash	\$28,000 00
One hundred shares of the stock of the San Francisco National Bank and two hundred shares of the Sather Banking Company stock, of the value of	20,000 00
One hundred shares of the stock of the Fireman's Fund Insurance Company, of the value of	21,000 00
Real estate in the town of Ashland, Oregon, of the value of	6,000 00
Total	\$75,000 00

This property I offer to you as a corporate body, upon the following conditions and for the following purposes:

That it, or its proceeds, be held by you as a separate and perpetual fund, the income whereof shall be paid to me quarterly during my life, and after my death shall be devoted by you to the perpetual support, maintenance, and equipment of such chair in a department of classical literature at the University of California as you in your discretion see fit to establish for this purpose, such chair to be known as the Jane K.

Sather Chair, and such fund as the Jane K. Sather Chair Fund. You are to have full and unrestricted rights of control, disposition, and ownership of the property constituting such fund, having in mind always the purpose of maintaining a perpetual fund properly invested so as to yield an income for the purposes heretofore mentioned.

I also offer you the following real property in this State:

First—The premises in the City of Oakland forming the northwest corner of Jefferson and Ninth streets, with a frontage of seventy-five feet on Ninth Street and one hundred feet on Jefferson Street.

Second—The premises in the City of Oakland on the west side of Broadway, thirty-four feet north of Delger Street, with a frontage of thirty-three feet and a depth of one hundred and thirteen feet six inches.

Third—The premises in the City of Oakland on the westerly side of Broadway Street one hundred feet north of Delger Street, with a frontage of fifty feet and a depth of one hundred feet.

Fourth—The premises in the City of Alameda on the easterly side of Park Street fifty feet south of Webb Avenue, with a frontage of fifty feet and a depth of approximately one hundred feet.

This property I offer to you as a corporate body, upon the following terms and conditions:

That you have the full and unrestricted rights of control, disposition, and ownership of this property, or the proceeds of it, but that during my life you are to hold it, or the proceeds of it, as a separate fund and keep the same invested according to your discretion so as to yield as large and steady an income as is possible consistently with safe investment and pay the income to me quarterly. After my death, so much of said property, or the proceeds of it, as amounts in your judgment to the sum of ten thousand dollars (\$10,000.00), shall be by you set aside and held as a separate and perpetual fund, to be known as the Jane K. Sather Law Library Fund, the income whereof shall be devoted by you to the perpetual support of a law library at the University of California by way of the purchase of law books and publications.

In case any of said property, or the proceeds thereof, remains after setting aside therefrom the fund just mentioned, such remainder shall, up to the amount of ten thousand dollars (\$10,000.00), be expended by you in the purchase of law books and publications for the purpose of establishing, adding to, or maintaining a law library at the University of California. The times and occasions for expending this sum, or any portion or portions of it, shall be entirely within your discretion, and waiting the proper time and occasion for such expenditures you shall have the right to invest and accumulate the said sum, or the property representing it. Each book or publication purchased with these gifts, or the proceeds thereof, shall be plainly stamped with a suitable device expressing that the same has been purchased with funds donated by me to the University of California.

In case any of said property, or the proceeds thereof, remains after setting aside the two foregoing sums of ten thousand dollars (\$10,000.00) each, then such remainder shall be devoted by you in such manner and at such times as you deem best to the advancement and support of the teaching of law at the University of California, in which case I ask you to take such means of permanently acknowledging this gift as you may deem advisable.

Upon receiving word from you of your acceptance of these gifts upon the conditions and for the purposes set forth, I will deliver to such officers as you may designate to receive the same, and give a receipt therefor in your name and on your behalf, proper instruments of transfer to you of the property specified.

With the sincere and deep hope that these gifts may be a source of great good to the University, and through it to the State,

I remain,

Yours very respectfully,

JANE K. SATHER.

President Wheeler submitted the following resolution:

WHEREAS, Jane K. Sather has offered certain gifts to this corporation for certain purposes and trusts and upon certain conditions by a written communication in the following language:

"SAN FRANCISCO, CAL., October 8, 1900.

"To the Regents of the University of California,

"GENTLEMEN: As a resident of the State of California, and one who is deeply interested in its welfare, I am desirous of encouraging and assisting the work of liberal education which is now being carried on by the University of California. For this purpose I offer you the following property:

Cash	\$28,000 00
One hundred shares of the stock of the San Francisco National Bank and two hundred shares of the Sather Banking Company stock, of the value of	20,000 00
One hundred shares of the stock of the Fireman's Fund Insurance Company, of the value of	21,000 00
Real estate in the town of Ashland, Oregon, of the value of	6,000 00
Total	\$75,000 00

"This property I offer you as a corporate body upon the following conditions and for the following purposes:

"That it, or its proceeds, be held by you as a separate and perpetual fund, the income whereof shall be paid to me quarterly during my life, and after my death shall be devoted by you to the perpetual support, maintenance, and equipment of such chair in a department of classical literature at the University of California as you in your discretion see fit to establish for this purpose, such chair to be known as the Jane K. Sather Chair, and such fund as the Jane K. Sather Chair Fund. You are to have the full and unrestricted rights of control, disposition, and ownership of the property constituting such fund, having in mind always the purpose of maintaining a perpetual fund properly invested so as to yield an income for the purposes heretofore mentioned.

"I also offer you the following real property in this State:

"First—The premises in the City of Oakland forming the northwest corner of Jefferson and Ninth streets, with a frontage of seventy-five feet on Ninth Street and one hundred feet on Jefferson Street.

"Second—The premises in the City of Oakland on the west side of Broadway, thirty-four feet north of Delger Street, with a frontage of thirty-three feet and a depth of one hundred and thirteen feet six inches.

"Third—The premises in the City of Oakland on the westerly side of Broadway Street one hundred feet north of Delger Street, with a frontage of fifty feet and a depth of one hundred feet.

"Fourth—The premises in the City of Alameda on the easterly side of Park Street, fifty feet south of Webb Avenue, with a frontage of fifty feet and a depth of approximately one hundred feet.

"This property I offer to you as a corporate body upon the following terms and conditions:

"That you have the full and unrestricted rights of control, disposition, and ownership of this property, or the proceeds of it, but that during my life you are to hold it, or the proceeds of it, as a separate fund and keep the same invested according to your discretion so as to yield as large and steady an income as is possible consistently with safe investment and pay the income to me quarterly. After my death, so much of said property, or the proceeds of it, as amounts in your judgment to the sum of ten thousand dollars (\$10,000.00), shall be by you set aside and held as a separate and perpetual fund to be known as the Jane K. Sather Law Library Fund, the income whereof shall be devoted by you to the perpetual support of a law library at the University of California by way of the purchase of law books and publications.

"In case any of said property, or the proceeds thereof, remains after setting aside therefrom the fund just mentioned, such remainder shall, up to the amount of ten thou-

sand dollars (\$10,000.00), be expended by you in the purchase of law books and publications for the purpose of establishing, adding to, or maintaining a law library at the University of California. The times and occasions for expending this sum, or any portion or portions of it, shall be entirely within your discretion, and waiting the proper time and occasion for such expenditures you shall have the right to invest and accumulate the said sum, or the property representing it. Each book or publication purchased with these gifts, or the proceeds thereof, shall be plainly stamped with a suitable device expressing that the same has been purchased with funds donated by me to the University of California.

"In case any of said property, or the proceeds thereof, remains after setting aside the two foregoing sums of ten thousand dollars (\$10,000.00) each, then such remainder shall be devoted by you in such manner and at such times as you deem best to the advancement and support of the teaching of law at the University of California, in which case I ask you to take such means of permanently acknowledging this gift as you may deem advisable.

"Upon receiving word from you of your acceptance of these gifts upon the conditions and for the purposes set forth, I will deliver to such officer as you may designate to receive the same, and give a receipt therefor in your name and on your behalf, proper instruments of transfer to you of the property specified.

"With the sincere and deep hope that these gifts may be a source of great good to the University, and through it to the State, I remain

"Yours very respectfully,

"JANE K. SATHER."

AND WHEREAS, It is deemed for the best interests of the University to accept this very generous offer;

Now, therefore, be it resolved, That said offer be and is hereby accepted by this corporation, and that the property offered be taken, received, held, managed, and invested, and the proceeds thereof used, bestowed, and applied by this corporation for the purposes and trusts and upon the conditions prescribed in said communication, and that the President of the University and the Secretary of this corporation be authorized in its behalf to receive the property so offered and the instruments of transfer and evidences thereof, and to give a receipt therefor in the name of this corporation and under its seal, specifying that the said property is accepted by this corporation upon the conditions and for the purposes and trusts specified in the said communication.

Be it further resolved, That the President of the University and the Secretary of this corporation be directed and authorized to transmit to Mrs. Sather a communication in the behalf of this corporation and under its seal informing her of the acceptance of her offer, embodying these resolutions.

[Adopted, October 9, 1900.]

Regent Rodgers offered the following resolution:

Resolved, That the Board of Regents record their profound appreciation of the most generous donation this day made by Mrs. Jane K. Sather for the foundation of the Jane K. Sather Chair and of a Jane K. Sather Law Library Fund and Law Department in the University, and that a committee consisting of the President of the University and two other members be appointed to express more fully to the donor our grateful acknowledgments.

[Adopted, October 9, 1900.]

President Wheeler recommended that a vote of thanks be extended to Mrs. Jane K. Sather for her gift of \$10,000 for the establishment of the Jane K. Sather Library Fund. [Adopted, December 11, 1900.]

LEGISLATION.

The following laws affecting the University were enacted by the Legislature at its session of 1901:

An Act making an appropriation of fifty thousand (\$50,000.00) dollars for the use and benefit of the University of California, directing the special purpose therefor, and prescribing the duties of the Controller and Treasurer in relation thereto.

[Approved March 8, 1901.]

WHEREAS, By the terms of the Act of Congress approved the second day of July, A. D. eighteen hundred and sixty-two, granting certain lands to the several States and Territories of the United States to provide a perpetual fund for the endowment, support, and maintenance of colleges, it was prescribed that the capital thereof shall remain forever undiminished; and further, that if any portion thereof should in any event be lost, the State to which it belongs shall replace the amount, so that the capital of the fund shall remain forever undiminished; and

WHEREAS, William C. Turner, late of Merced, California, did in his lifetime borrow from the Regents of the University of California, a beneficiary of the Act of Congress aforesaid, the sum of forty-seven thousand (\$47,000.00), money of the perpetual fund provided for the University of California by the said Act of Congress, and a loss or diminution of the perpetual fund may by possibility result therefrom; now, therefore, *The People of the State of California, represented in Senate and Assembly, do enact as follows:*

SECTION 1. The sum of fifty thousand (\$50,000.00) dollars is hereby appropriated out of any money in the State treasury not otherwise appropriated, for the use, benefit, maintenance, and support of the University of California. The sum hereby appropriated shall be in addition to all other sums of money provided for the use of the University of California; but in the event any diminution of the perpetual endowment fund of the University of California results from the loan to William C. Turner, above mentioned, or loss is caused thereby, the money hereby appropriated, or so much thereof as shall be necessary therefor, shall be used by the Regents of the University of California to make good such diminution or loss, and the residue only shall be put into the University Fund; but in the event no loss or diminution arises from the loan to William C. Turner, aforesaid, then the whole of the money hereby appropriated shall be paid into the University Fund.

SEC. 2. The Controller is authorized and directed to draw his warrant for the sum hereby appropriated, payable to the Treasurer of the University of California, and the Treasurer of the State is directed to pay the same.

SEC. 3. This Act shall be in effect from and after its passage.

An Act making an appropriation of two hundred thousand (\$200,000.00) dollars for the support and maintenance of the University of California, providing for the time of the payment thereof, and prescribing the duties of the Controller and Treasurer in relation thereto.

[Approved March 8, 1901.]

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. The sum of two hundred thousand (\$200,000.00) dollars is hereby appropriated out of any money in the State treasury not otherwise appropriated, for the use and support of the University of California, in addition to all other sums of money provided for the support and maintenance of the University of California. Fifty thousand (\$50,000.00) dollars, parcel thereof, shall be paid on the first day of July, A. D. nineteen hundred and one; seventy-five thousand (\$75,000.00) dollars, parcel thereof, on the first day of January, A. D. nineteen hundred and two; and seventy-five thousand (\$75,000.00) dollars, remaining parcel thereof, on the first day of July, A. D. nineteen hundred and two.

SEC. 2. The Controller is authorized and directed to draw his warrants for the same, payable to the order of the Treasurer of the University of California, and the Treasurer of State is directed to pay such warrants.

SEC. 3. This Act shall be in effect from and after its passage.

FINANCIAL AND OTHER STATEMENTS.**VALUE OF PROPERTY BELONGING TO THE UNIVERSITY OF CALIFORNIA.****The plant at Berkeley:**

245 ⁷ / ₈ acres of land, at \$4,370.65 per acre	\$1,069,760 00	
3 ³ / ₈ acres of land, at \$1,137.72 per acre	3,800 00	
Buildings	743,039 75	
Apparatus and other contents of buildings	380,000 00	
		<hr/> \$2,196,599 75
Plant at Mount Hamilton	\$619,225 00	
Medical College building and lot in San Francisco	25,000 00	
Affiliated Colleges site	15,000 00	
Affiliated Colleges buildings	250,000 00	
Mark Hopkins Institute of Art (building and land)	600,000 00	
Flood Endowment (land, etc.)	750,000 00	
Wilmerding School (building and land)	60,000 00	
Jucksch Donation (land)	1,000 00	
		<hr/> 2,320,225 00
		<hr/> \$4,516,824 75

CASH CAPITAL JUNE 30, 1901.**Consolidated Perpetual Endowment Fund.**

Bearing interest	\$1,917,777 90	
Awaiting investment	20,900 31	
Montgomery Avenue bonds	22,000 00	
		<hr/> \$1,960,678 21

Special Funds.

J. Clute Wilmerding Endowment Fund	\$434,000 00	
Cora Jane Flood Endowment Fund	114,000 00	
Hastings College of the Law Fund	100,000 00	
D. O. Mills Endowment Fund	100,000 00	
Lick Observatory Fund	90,018 16	
Jane K. Sather Chair Fund	75,000 00	
Michael Reese Library Fund	50,000 00	
Edward Tompkins Endowment Fund	47,237 59	
Whiting Fund	20,000 00	
Le Conte Memorial Fellowship Fund	10,000 00	
Jane K. Sather Law Library Fund	10,000 00	
Jane K. Sather Library Fund	10,000 00	
University Medal Fund	4,329 32	
F. J. Walton Memorial Loan Fund	2,459 04	
Hermann Royer Endowment Fund	2,155 64	
C. B. Houghton Scholarship	3,000 00	
P. Charles Cole Scholarship	1,000 00	
E. A. Denicke Library Fund	1,000 00	
Class of 1900 Library Fund	150 00	
		<hr/> 1,074,349 75
		<hr/> \$3,035,027 96

INVESTMENTS.**Consolidated Perpetual Endowment Fund.**

Bonds	\$684,000 00	
Mortgages	515,821 93	
Johnson Building	400,000 00	
Sacramento Building	210,000 00	
Diverted Funds	79,750 00	
Bear Gulch Water Company's Bonds	50,000 00	
Savings Banks	205 97	
		<hr/> \$1,939,777 90

Special Funds.

J. Clute Wilmerding Endowment Fund (mortgages)	\$414,000 00	
Cora Jane Flood Endowment (Bear Gulch Water Co.'s bonds) ..	114,000 00	
Hastings College of the Law Fund (State of California)	100,000 00	
D. O. Mills Endowment Fund (mortgages)	98,500 00	
Lick Observatory Fund (bonds)	90,000 00	
Jane K. Sather Chair Fund (real estate and savings banks) ..	75,000 00	
Michael Reese Library Fund (mortgages)	50,000 00	
Edward Tompkins Endowment Fund	47,000 00	
Whiting Fund (mortgages)	20,000 00	
Le Conte Memorial Fellowship Fund (mortgages)	9,600 00	
Jane K. Sather Law Library Fund (real estate)	10,000 00	
Jane K. Sather Library Fund (notes)	10,000 00	
University Medal Fund (mortgages)	3,898 02	
F. J. Walton Memorial Loan Fund (mortgages)	2,180 05	
C. B. Houghton Scholarship (mortgages)	3,000 00	
P. Charles Cole Scholarship (mortgages)	1,000 00	
		<hr/> 1,048,178 07

Cash Awaiting Investment.

Consolidated Perpetual Endowment Fund	\$20,900 31	
J. Clute Wilmerding Endowment Fund	20,000 00	
D. O. Mills Endowment Fund	1,500 00	
Lick Observatory Fund	18 16	
Edward Tompkins Endowment Fund	237 59	
Le Conte Memorial Fellowship Fund	400 00	
University Medal Fund	431 30	
F. J. Walton Memorial Loan Fund	278 99	
Hermann Royer Endowment Fund	2,155 64	
E. A. Denicke Library Fund	1,000 00	
Class of 1900 Library Fund	150 00	
		<hr/> 47,071 99
		<hr/> <u>\$3,035,027 96</u>

INCOME FOR THE YEAR ENDING JUNE 30, 1901.

General Fund.

Interest on bonds	\$39,963 75
Interest on mortgages	32,578 56
Interest on diverted funds	4,785 00
Sale of wood at Lick Observatory	26 25
Sale of publications	27 70
Rebates, library fines, tests, etc.	450 97
Geological Survey reports	96 00
Printing	370 85
Income from Johnson Building	23,295 14
Income from Sacramento Building	13,409 14
Rent of cottages	940 00
Summer School, 1900	1,430 32
Students' deposits—Gymnasium Lockers	\$558 00
North Hall Lockers	9 00
Agricultural Laboratory	125 00
Zoölogical Laboratory	286 15
Botanical Laboratory	167 50
Civil Engineering Laboratory	545 95
Chemical Laboratory	8,828 25
Mineralogical Laboratory	383 00
Mining Laboratory	1,243 38
Physical Laboratory	4,373 95
	16,520 18
State University Fund, 2 cent tax—75% for current expenses, \$182,673 57; 25% for permanent improvements, etc., \$60,891 19	182,673 57
Balance forward from year 1899–1900	179 37
	<u>\$316,746 80</u>

Special Funds.

J. Clute Wilmerding Endowment Fund	\$26,907 85
D. O. Mills Endowment Fund	6,047 50
Edward Tompkins Endowment Fund	3,054 96
Michael Reese Library Fund	3,000 00
Lick Observatory Fund	5,400 00
Whiting Fund	1,399 92
Cora Jane Flood Endowment Fund	98 85
University Medal Fund	184 77
F. J. Walton Memorial Loan Fund	220 02
P. Charles Cole Scholarship	69 96
Le Conte Memorial Fellowship Fund	660 67
Agricultural Experiment Station Fund	15,000 00
Morrill College Aid Fund	25,000 00
J. K. Moffitt Donation	200 00
W. H. Crocker Eclipse Fund	3,049 43
D. O. Mills Donation to Department of Philosophy	600 00
D. O. Mills Donation for Southern Hemisphere Expedition	6,000 00
Levi Strauss Scholarships	3,500 00
C. B. Houghton Scholarship	195 00
R. C. Daniels Scholarship	150 00
Examiner Fellowship	900 00
Emanu-El Fellowship	500 00
Donation to Department of Semitic Languages	100 00
Donation to Department of Geology	285 00
Mary Jucksch Donation	5 00
Donation by National Academy of Sciences	500 00
Donation for Lectures by Deschamps	400 00
Jane K. Sather Chair Fund	1,150 00
Jane K. Sather Law Library Fund	522 70
Jane K. Sather Library Fund	300 00
University Extension Work	95 00
Sale of Miss Shinn's pamphlet	74 10
Sale of produce, etc. (Agricultural Experiment Stations)	54 79

\$105,625 52

EXPENDITURES FOR YEAR ENDING JUNE 30, 1901.

General Fund.

Salaries		\$239,513 65
Fuel	\$2,190 00	
Equipment	940 87	
Repairs	3,431 33	
Telegraphing and expressage	1,111 37	
Stationery	192 19	
Postage	854 25	
Examination of schools	1,447 95	
Expense	10,829 27	
Light and power	2,444 78	
Water	2,698 65	
Insurance	240 00	
		26,380 66
Library		6,673 61
University Printing Office		5,608 82
University Site improvement		5,956 28
Department of Agriculture		7,742 14
Department of Astronomy		184 08
Department of Botany		388 09
Department of Chemistry		5,712 06
Department of Civil Engineering		724 22
Department of English		19 90
Department of Geology		125 44
Department of Greek		80 25
Department of History and Political Science		6 00
Department of Latin		30 77
Department of Lick Observatory		5,068 20
Department of Mathematics		101 55
Department of Mechanics		3,122 22
Department of Military Science		564 69
Department of Mineralogy		510 35
Department of Mining		1,901 60
Department of Oriental Languages		35 52
Department of Philosophy		17 30
Department of Physical Culture		316 22
Department of Physics		727 73
Department of Zoölogy		924 13
Department of Geography		78 15
Department of Irrigation		94 70
State of California Scholarships		3,500 00
Revenue account		92 00
		<u>\$316,200 33</u>

EXPENDITURES FOR YEAR ENDING JUNE 30, 1901—Continued.

Special Funds.

Agricultural Experiment Station Fund.	\$15,711 16
Morrill College Aid Fund	25,000 00
Edward Tompkins Endowment Fund	3,000 00
Lick Observatory Fund	5,400 00
D. O. Mills Endowment Fund	5,999 88
German Library Fund	42 85
F. J. Walton Memorial Loan Fund	160 00
M. Reese Library Fund	3,888 39
J. Clute Wilmerding Endowment Fund	27,390 05
Whiting Fund (interest)	966 21
Flood Endowment Fund	2,378 65
Jane K. Sather Chair Fund	1,459 46
Jane K. Sather Law Library Fund	610 20
Jane K. Sather Library Fund	135 83
Phoebe Hearst Scholarships	2,400 00
Levi Strauss Scholarships	3,500 00
Examiner Fellowship	900 00
Le Conte Memorial Fellowship Fund	576 00
Cornelius B. Houghton Scholarship	150 00
Bruce Donation	19 87
W. H. Crocker Eclipse Fund	3,049 43
Donation to Department of Geology	400 00
Donation to Department of Mineralogy	50 00
Donation for Deschamps lectures	500 00
Donation to Department of Semitic Languages	19 08
J. K. Moffitt Donation	131 84
D. O. Mills Donation to Lick Observatory	1,647 00
Agricultural Experiment Stations (sale of produce, etc.)	296 96
J. A. Mayers Donation	91 00
University Extension Work	244 70
	<hr/>
	\$106,118 56

**STATEMENT OF ALL RECEIPTS AND DISBURSEMENTS FOR YEAR ENDING
JUNE 30, 1901.**

Receipts.

Administration	\$36 90
University Printing Office	370 85
Agricultural Experiment Station Fund	15,000 00
Morrill College Aid Fund	25,000 00
Edward Tompkins Endowment Fund	3,054 96
University Medal Fund	184 77
F. J. Walton Memorial Loan Fund	220 02
Lick Observatory Fund (interest)	5,400 00
D. O. Mills Endowment Fund (interest)	6,047 50
M. Reese Library Fund (interest)	3,000 00
J. Clute Wilmerding Endowment Fund (interest)	26,907 85
Whiting Fund (interest)	1,399 92
Flood Endowment Fund (interest)	98 85
Jane K. Sather Chair Fund (interest)	1,150 00
Jane K. Sather Law Library Fund (interest)	522 70
Jane K. Sather Library Fund (interest)	300 00
Bills receivable	37,500 00
Cash on hand June 30, 1900	108,300 29
Contingent funds	800 00
Income from Johnson Building	30,594 65
Palmer House	450 00
Rent account	940 00
Revenue account	77,891 33
State Treasurer	11,000 00
State University Fund—2-cent tax	243,564 76
Income from Sacramento Building	15,513 50
Students' deposits—Rent of Gymnasium Lockers	558 00
Library	915 00
Military Uniforms	3,549 65
North Hall Lockers	9 00
Medical Examinations	256 00
Agricultural Laboratory	381 00
Zoölogical Laboratory	389 50
Botanical Laboratory	50 00
Civil Engineering Laboratory	1,354 00
Chemical Laboratory	13,163 70
Mineralogical Laboratory	477 50
Mining Laboratory	3,225 00
Physical Laboratory	9,121 25
Levi Strauss Scholarships	3,500 00
P. Charles Cole Scholarship	69 96
Examiner Fellowship	900 00
Ralph C. Daniels Scholarship	150 00
Emanu-El Fellowships in Semitic Languages	500 00
Le Conte Memorial Fellowship Fund	660 67
Cornelius B. Houghton Scholarship	195 00
William H. Crocker Eclipse Fund	3,049 43
Donations to Department of Geology	285 00
Donations to Department of Philosophy	600 00
Donations for Deschamps lectures	400 00
Donations by National Academy of Sciences for Lick Observatory	500 00
Donations to Department of Semitic Languages	100 00
Jucksch Donation	5 00
J. K. Moffitt Donation	200 00
D. O. Mills Donation to Lick Observatory	6,000 00
Agricultural Experiment Stations (sale of produce, etc.)	54 79
Sale of Miss Shinn's pamphlet	74 10
University Extension Work	95 00
Summer School, 1900	4,225 00
	<hr/>
	\$670,262 40

STATEMENT OF ALL RECEIPTS AND DISBURSEMENTS—Continued.

Disbursements, 1900-1901.

Salaries—

Departments	\$239,513 65
Agricultural Experiment Station Fund	7,318 26
Morrill College Aid Fund	25,000 00
Edward Tompkins Endowment Fund	3,000 00
Lick Observatory Fund	5,400 00
D. O. Mills Endowment Fund	5,999 88
	<hr/> \$286,231 79

Budgets—

Administration	31,117 71
Library	6,673 61
University Printing Office	5,608 82
University Site Improvement	9,956 28
Department of Agriculture	7,742 14
Department of Astronomy	184 08
Department of Botany	388 09
Department of Chemistry	9,622 86
Department of Civil Engineering	1,030 72
Department of English	19 90
Department of Geology	283 44
Department of Greek	80 25
Department of History and Political Science	6 00
Department of Latin	30 77
Department of Lick Observatory	5,343 20
Department of Mathematics	101 55
Department of Mechanics	3,795 87
Department of Military Science	564 69
Department of Mineralogy	510 35
Department of Mining	1,901 60
Department of Oriental Languages	35 52
Department of Philosophy	17 30
Department of Physical Culture	316 22
Department of Physics	826 73
Department of Zoölogy	1,124 13
Department of Geography	78 15
Department of Irrigation	94 70
Agricultural Experiment Station Fund	8,392 90
German Library Fund	42 85
F. J. Walton Memorial Loan Fund	160 00
M. Reese Library Fund (interest)	3,888 39
J. Clute Wilmerding Endowment Fund (interest)	27,390 05
Whiting Fund (interest)	966 21
Flood Endowment Fund (interest)	2,378 65
Jane K. Sather Chair Fund (interest)	1,459 46
Jane K. Sather Law Library Fund (interest)	610 20
Jane K. Sather Library Fund (interest)	135 83
Cash on hand June 30, 1901	63,970 40
Contingent funds	800 00
Johnson Building	503 25
Income from Johnson Building	7,299 51
Palmer House	206 60
Revenue account	92 00
Purchase of Bear Gulch Water Company Bonds	52,013 52
Income from Sacramento Building	2,104 36
Students' deposits—Diplomas	850 00
Forward	<hr/> \$546,950 65

STATEMENT OF ALL RECEIPTS AND DISBURSEMENTS—Continued.**Disbursements, 1900-1901—Continued.**

Amount forward.....	\$546,950 65
Students' deposits—Library	845 00
Military Uniforms.....	3,549 65
Medical Examinations.....	202 00
Agricultural Laboratory.....	241 25
Zoölogical Laboratory.....	94 35
Botanical Laboratory.....	50 00
Civil Engineering Laboratory	789 55
Chemical Laboratory.....	4,323 85
Mineralogical Laboratory.....	67 00
Mining Laboratory.....	1,953 30
Physical Laboratory.....	4,790 65
Phœbe Hearst Scholarships.....	2,400 00
State of California Scholarships	3,500 00
Levi Strauss Scholarships.....	3,500 00
Examiner Fellowship.....	900 00
Le Conte Memorial Fellowship Fund.....	576 00
Cornelius B. Houghton Scholarship.....	150 00
Bruce Donation	19 87
William H. Crocker Eclipse Fund.....	3,049 43
Donation to Department of Geology.....	400 00
Donation to Department of Philosophy	600 00
Donation to Department of Mineralogy	50 00
Donation for Deschamps lectures.....	500 00
Donation to Department of Semitic Languages.....	19 08
J. K. Moffitt Donation	131 84
D. O. Mills Donation to Lick Observatory	1,647 00
Agricultural Experiment Stations (sale of produce, etc.).....	296 96
J. A. Mayers Donation	91 00
Hillegass Tract	1,085 37
Bills payable	56,040 00
University Extension Work.....	244 70
Summer School, 1900.....	2,794 68
Summer School, 1901.....	111 88
Summer School, Biology, 1901	654 93
Addition to Gymnasium	3,346 75
Addition to Chemical Laboratory.....	1,291 75
President's House.....	19,000 00
Armory in Gymnasium	4,003 91
	<u>\$670,262 40</u>

TRIAL BALANCE FOR THE MONTH OF JUNE, 1901.

Folio.	Dr.	Cr.
175	Agricultural Experiment Station Fund	\$216 42
191	Consolidated Perpetual Endowment Fund	1,960,678 21
193	German Library Fund	591 07
195	Lick Observatory Fund	90,018 16
196	D. O. Mills Endowment Fund	100,000 00
197	Michael Reese Library Fund	50,000 00
197	Hermann Royer Endowment Fund	2,155 64
197	Jane K. Sather Chair Fund	75,000 00
197	Jane K. Sather Law Library Fund	10,000 00
197	Jane K. Sather Library Fund	10,000 00
198	Edward Tompkins Endowment Fund	47,237 59
203	University Medal Fund	4,329 32
206	F. J. Walton Memorial Loan Fund	2,459 04
209	J. Clute Wilmerding Endowment Fund	400,000 00
210	The Whiting Fund	20,000 00
221	D. O. Mills Endowment Fund (interest)	1,205 96
225	Michael Reese Library Fund (interest)	2,843 13
229	J. Clute Wilmerding Endowment Fund (interest)	37,687 66
233	The Whiting Fund (interest)	2,383 53
236	Flood Endowment Fund (interest)	\$5,262 63
	Flood Endowment Fund	114,379 24
240	Jane K. Sather Chair Fund (interest)	417 41
242	Jane K. Sather Law Library Fund (interest)	87 50
244	Jane K. Sather Library Fund (interest)	164 17
250	Bills receivable	1,175,000 00
258	Cash—Louis Sloss, treasurer	63,970 40
266	Contingent funds	1,850 00
267	Johnson Building	400,000 00
275	Palmer House	321 80
281	Revenue account	19,285 87
289	State fees	22 00
289	State Treasurer	774,000 00
291	State of California—Diverted Funds	79,750 00
291	Bear Gulch Water Company Bonds	166,392 76
292	Toland Medical College	5,724 24
293	Permanent Improvement Fund	83,469 85
294	Sacramento Building	210,000 00
310	Excess payments on minimum lands	1,363 15
310	Excess payments due United States	840 00
311	Students' deposits—Diplomas	6,050 00
318	Library	325 00
320	Military Uniforms	16 72
322	Medical Examinations	511 00
323	Agricultural Laboratory	18 50
324	Zoölogical Laboratory	7 50
326	Botanical Laboratory	10 00
327	Civil Engineering Laboratory	88 25
330	Chemical Laboratory	826 63
334	Mineralogical Laboratory	25 00
336	Mining Laboratory	162 87
339	Physical Laboratory	263 70
350	Phœbe Hearst Scholarships	2,400 00
368	P. Charles Cole Scholarship	1,227 37
371	Regents' Graduate Scholarships	200 00
389	Ralph C. Daniels Scholarship	150 00
389	Emanu-El Fellowships in Semitic Languages	500 00
	Forward	\$2,884,981 33
		\$3,046,907 96

TRIAL BALANCE FOR THE MONTH OF JUNE, 1901—Continued.

Folio.	Dr.	Cr.
	Amounts forward	
390	Le Conte Memorial Fellowship Fund	\$2,884,981 33
392	Cornelius B. Houghton Scholarship	\$3,046,907 96
416	Donation to Department of Geology	10,005 00
417	Donation by Class of 1900	3,114 00
417	Donation for Deschamps lectures	115 00
417	Donation by National Academy of Sciences	150 00
418	Donation to Department of Semitic Languages	100 00
419	Jucksch Donation	500 00
420	W. W. Law Donation	59 54
421	J. K. Moffitt Donation	43 39
422	Hearst Donation for lighting	49 61
423	D. O. Mills Donation to Lick Observatory	324 47
430	German Savings and Loan Society	363 80
431	San Francisco Savings Union	4,353 00
432	Security Savings Bank	
433	Hibernia Savings and Loan Society	639 93
433	Central Bank	16,906 32
454	William C. Turner	1,012 56
455	Agricultural Experiment Stations (sale of produce, etc.)	3,152 30
455	Sale of Miss Shinn's pamphlet	9,344 35
455	J. A. Mayers Donation	18,739 40
456	Profit and Loss	
456	Denicke Library Fund	340 76
456	Sather Banking Co. and San Francisco National Bank	105 13
456	Fireman's Fund Insurance Company	159 00
457	Real estate in Ashland, Or.	1,732 91
457	Real estate in Oakland and Alameda	1,000 00
457	Hillegass Tract	
457	Bills payable	114,284 48
458	University Extension Work	149 70
497	Summer School, 1901	111 88
497	Summer School, Biology	654 93
501	President's House	19,175 50
	<u>\$3,183,493 05</u>	<u>\$3,183,493 05</u>

STATEMENT OF BONDS AND MORTGAGES, JUNE 30, 1901.

Description.	Date of Maturity.	Rate of Interest.	Par Value.	Annual Interest.
Bonds.				
State of California.....	Jan. 2, 1893	6 %	\$610,000 00	\$36,600 00
State of California.....	Jan. 2, 1893	6	141,000 00	8,460 00
City and County of San Francisco:				
Park Improvement.....	April 1, 1894	6	1,000 00	60 00
Montgomery Avenue.....	Jan. 1, 1903		22,000 00	
Total invested in bonds.....			\$774,000 00	\$45,120 00
Diverted Funds.....			\$79,750 00	\$4,785 00
Mortgages.				
Oakland real estate.....			\$312,500 00	\$20,137 40
San Francisco real estate.....			414,000 00	25,040 00
Merced County real estate.....			47,000 00	3,290 00
Sacramento real estate.....			30,000 00	2,100 00
Marin County real estate.....			45,000 00	2,700 00
Tehama County real estate.....			15,000 00	1,050 00
Alameda County real estate.....			30,000 00	2,100 00
Los Angeles real estate.....			273,000 00	19,110 00
Total invested in mortgages.....			\$1,166,500 00	\$75,527 40
Recapitulation.				
Total invested in bonds.....			\$774,000 00	\$45,120 00
Total invested in mortgages.....			1,166,500 00	75,527 40
Diverted Funds.....			79,750 00	4,785 00
Totals.....			\$2,020,250 00	\$125,432 40

SEGREGATION OF BONDS AND MORTGAGES.

Consolidated Perpetual Endowment Fund, diverted funds.....	\$79,750 00	\$4,785 00
Consolidated Perpetual Endowment Fund, mortgages.....	515,821 93	35,385 24
Consolidated Perpetual Endowment Fund, bonds.....	684,000 00	39,720 00
J. Clute Wilmerding Endowment Fund, mortgages.....	414,000 00	25,470 96
D. O. Mills Endowment Fund, mortgages.....	100,000 00	6,000 00
Lick Observatory Fund, bonds.....	90,000 00	5,400 00
Michael Reese Library Fund, mortgages.....	50,000 00	3,000 00
Edward Tompkins Endowment Fund, mortgages.....	47,000 00	3,055 00
The Whiting Fund, mortgages.....	20,000 00	1,400 00
University Medal Fund, mortgages.....	3,898 02	237 60
F. J. Walton Memorial Loan Fund, mortgages.....	2,180 05	152 60
P. Charles Cole Scholarship, mortgages.....	1,000 00	70 00
Le Conte Memorial Fellowship Fund, mortgages.....	9,600 00	576 00
C. B. Houghton Scholarship.....	3,000 00	180 00
Totals.....	\$2,020,250 00	\$125,432 40

DEPARTMENTAL DISBURSEMENTS FOR THE YEAR ENDING JUNE 30, 1901.

Salaries.

Administration	\$39,914 06
Agricultural Experiment Stations	7,318 26
Department of Agriculture	12,166 64
Department of Astronomy	3,847 50
Department of Botany	4,500 00
Department of Chemistry	10,027 92
Department of Civil Engineering	8,300 00
Department of English	15,199 80
Department of Geography	3,999 96
Department of Geology	3,733 33
Department of German	7,132 42
Department of Greek	5,671 48
Department of History and Political Science	11,499 90
Department of Jurisprudence	4,499 88
Department of Latin	11,958 32
Department of Lick Observatory	15,448 59
Department of Mechanics	8,899 92
Department of Mathematics	13,999 68
Department of Mineralogy	3,000 00
Department of Mining	3,697 50
Department of Military Science	799 92
Department of Oriental Languages	720 00
Department of Romance Languages	7,200 00
Department of Semitic Languages	2,400 00
Department of Education	6,199 92
Department of Irrigation	500 00
Department of Philosophy	5,000 04
Department of Physics	11,399 76
Department of Physical Culture	4,513 84
Department of Zoölogy	5,483 27
Library	5,970 00
University Printing Office	1,830 00
D. O. Mills Endowment Fund	5,999 88
Morrill College Aid Fund	25,000 00
Edward Tompkins Endowment Fund	3,000 00
Lick Observatory Fund	5,400 00
Sacramento Building	360 00
Johnson Building	3,372 00

\$289,963 79

Administration.

Fuel	\$2,190 00
Equipment	4,375 26
Repairs	3,431 33
Telegraphing and expressage	1,111 37
Stationery	192 19
Postage	854 25
Examination of schools	1,447 95
Expenses	10,956 87
Light and power	3,619 84
Water	2,698 65
Insurance	240 00
	<u>\$31,117 71</u>

DEPARTMENTAL DISBURSEMENTS—Continued.

Departments.	
University Library	\$6,673 71
University Printing Office	5,608 82
University Site Improvement	9,956 28
Department of Agriculture (equipment, repairs, expenses, and labor)	5,082 45
Department of Agriculture (Farmers' Institutes)	1,469 99
Department of Agriculture (Forestry)	704 29
Department of Agriculture (Viticulture)	263 00
Department of Agriculture (Dairying)	222 41
Department of Astronomy	184 08
Department of Botany	388 09
Department of Chemistry	9,622 86
Department of Civil Engineering	1,030 72
Department of English	19 90
Department of Geology	283 44
Department of Greek	80 25
Department of Geography	78 15
Department of History and Political Science	6 00
Department of Irrigation	94 70
Department of Latin	30 77
Department of Lick Observatory	5,343 20
Department of Mathematics	101 55
Department of Mechanics	3,795 87
Department of Military Science	564 69
Department of Mineralogy	510 35
Department of Mining	1,901 60
Department of Oriental Languages	35 52
Department of Philosophy	17 30
Department of Physical Culture	316 22
Department of Physics	826 73
Department of Zoölogy	1,124 13
Sacramento Building	1,744 36
Johnson Building	3,927 51
Flood property	2,378 65
German Library Fund	42 85
F. J. Walton Memorial Loan Fund	160 00
Michael Reese Library Fund	3,888 39
J. Clute Wilmerding Endowment Fund	27,390 05
Edward Tompkins Endowment Fund	3,000 00
D. O. Mills Endowment Fund	5,999 88
Whiting Fund (interest)	966 21
Lick Observatory Fund	5,400 00
Jane K. Sather Library Fund	135 83
Le Conte Memorial Fellowship Fund	576 00
Donation to Department of Semitic Languages and Literature	19 08
Donation to Department of Geology	400 00
Donation to Department of Mineralogy	50 00
Donation for Deschamps Lectures	500 00
J. K. Moffitt Donation	131 84
J. A. Mayers Donation	91 00
Agricultural Experiment Stations.	
Labor	\$4,598 82
Publications	118 68
Postage and stationery	193 55
Freight and expressage	145 03
Forward	\$5,056 08

DEPARTMENTAL DISBURSEMENTS—Continued.**Agricultural Experiment Stations—Continued.**

Amount forward	\$5,056 08
Heat, light, and water	244 20
Chemical supplies	183 37
Seeds, plants, and sundry supplies	464 03
Feed stuffs	109 00
Library	219 68
Tools, implements, and machinery	531 90
Furniture and fixtures	188 00
Scientific apparatus	41 50
Traveling expenses	559 90
Contingent expenses	42 50
Buildings and repairs	41 58
	<hr/>
	\$7,681 74
Sale of produce, etc.	<hr/>
	\$296 96

Lick Observatory.

D. O. Mills Donation	\$1,647 00
Bruce Donation	19 87
William H. Crocker Eclipse Fund	3,049 43
	<hr/>
	\$4,716 30

Morrill College Aid Fund—(Salaries).

Department of Agriculture	\$8,143 06
Department of Chemistry	1,320 00
Department of Mechanics	5,249 96
Department of Mining	3,699 96
Department of Botany	3,747 10
Department of Physics	1,200 00
Department of Civil Engineering	1,639 92
	<hr/>
	\$25,000 00

STATE APPROPRIATION (TWO-CENT FUND) FOR FISCAL YEAR ENDING JUNE 30, 1901.

The following is a statement of expenditures and receipts of the State University Fund as directed in an Act of the Legislature of the State of California, entitled "An Act to provide for the permanent support and improvement of the University of California, by the levy of a rate of taxation, and the creation of a fund therefor," approved February 14, 1887; and "An Act to provide additional support and maintenance and for the acquisition of necessary property and improvements for the University of California by the levy of a rate of taxation, and the creation of a fund therefor," approved February 27, 1897:

Receipts.

1901—Jan. 31—Cash on Controller's warrants	\$174,053 12
June 29—Cash on Controller's warrants	69,511 64
	<hr/>
	\$243,564 76

Expenditures.

Administration—Salaries	\$39,914 06
Fuel	2,190 00
Equipment	4,375 26
Repairs	3,431 33
Telegraphing and Expressage	1,111 37
Stationery	192 19
	<hr/>
Forward	\$51,214 21

STATE APPROPRIATION—Expenditures—Continued.

Amount forward	\$51,214 21
Administration—Postage	854 25
Examination of Schools	1,447 95
Expenses	10,956 87
Light and Power	3,619 84
Water	2,698 65
Insurance	240 00
Department of Astronomy	4,031 58
Botany	4,888 09
Chemistry	19,650 70
Civil Engineering	9,330 72
English	15,219 70
Geology	4,016 77
German	7,132 42
Greek	5,751 73
History and Political Science	11,505 90
Jurisprudence	4,499 88
Latin	11,254 23
Permanent improvements	14,360 00
Reserved for permanent improvements	60,891 19
	<u>\$243,564 76</u>

RECEIPTS AND EXPENDITURES OF THE REESE LIBRARY FUND TO JUNE 30, 1901.

Expenditures.		Receipts.	
To June 30, 1881	\$781 93	By June 30, 1880	\$3,444 44
To June 30, 1882	5,459 78	By June 30, 1881	5,000 00
To June 30, 1883	3,235 11	By June 30, 1882	3,574 99
To June 30, 1884	5,278 19	By June 30, 1883	3,000 00
To June 30, 1885	3,340 06	By June 30, 1884	3,000 00
To June 30, 1886	1,945 71	By June 30, 1885	1,630 90
To June 30, 1887	1,405 84	By June 30, 1886	2,825 94
To June 30, 1888	3,275 94	By June 30, 1887	2,942 73
To June 30, 1889	3,321 11	By June 30, 1888	3,062 52
To June 30, 1890	2,490 33	By June 30, 1889	3,182 31
To June 30, 1891	3,846 44	By June 30, 1890	3,219 93
To June 30, 1892	2,809 58	By June 30, 1891	2,608 74
To June 30, 1893	1,925 73	By June 30, 1892	3,335 25
To June 30, 1894	5,124 00	By June 30, 1893	3,182 39
To June 30, 1895	2,351 59	By June 30, 1894	2,109 43
To June 30, 1896	2,051 54	By June 30, 1895	1,724 15
To June 30, 1897	4,362 37	By June 30, 1896	5,671 09
To June 30, 1898	3,358 19	By June 30, 1897	3,000 00
To June 30, 1899	4,283 70	By June 30, 1898	3,000 00
To June 30, 1900	1,620 98	By June 30, 1899	3,484 81
To June 30, 1901	3,888 39	By June 30, 1900	3,000 00
To balance	2,843 13	By June 30, 1901	3,000 00
	<u>\$68,999 64</u>		<u>\$68,999 64</u>

INSURANCE.

The following is a list of insurance now in force:

	Premium.	Amount.	Date of Expiration.
Military arms and accouterments.....	\$16 85	\$936 32	...January 27, 1902
Military arms and accouterments.....	17 50	971 84	.... April 21, 1903
Military arms and accouterments.....	32 50	1,806 00	.....May 11, 1902
Military arms and accouterments.....	81 25	4,514 78	.....May 23, 1904
Military arms and accouterments.....	30 60	1,698 75	September 3, 1901
Military arms and accouterments.....	50 00	5,012 74	...October 9, 1901
Johnson property.....	234 00	30,000 00	November 12, 1901
Johnson property.....	131 19	10,000 00	November 12, 1901
Johnson property.....	43 00	5,000 00	November 12, 1901
Johnson property.....	351 00	45,000 00	November 12, 1901
Johnson property.....	25 80	3,000 00	November 12, 1901
Johnson property.....	54 60	7,000 00	November 12, 1901
Johnson property.....	39 00	5,000 00	November 12, 1901
Johnson property.....	39 00	5,000 00	November 12, 1901
Johnson property.....	78 00	10,000 00	November 12, 1901
Johnson property, on elevators (accident)...	75 00	10,000 00	.... April 8, 1902
Johnson property, on plate glass.....	35 00	To replace.	September 22, 1901
Johnson property, on plate glass.....	50 00	To replace.	September 22, 1901
Sacramento Building.....	369 00	46,000 00	.... April 26, 1902
Sacramento Building.....	79 80	10,000 00	.... April 26, 1902
Flood property.....		7,500 00	...March 18, 1901
Flood property.....		3,000 00	...March 25, 1901
Flood property.....		3,000 00	...March 28, 1901
Flood property.....		7,500 00	...March 29, 1901
Flood property.....		2,500 00	...April 22, 1901
Flood property.....		11,750 00	...April 23, 1901
Flood property.....		46,000 00	...April 24, 1901
Flood property.....		2,500 00	...May 4, 1901
Flood property.....		1,500 00	...May 16, 1901
Flood property.....		6,750 00	...May 19, 1901
Flood property.....		2,500 00	January 4, 1901
Medical College equipment.....	63 00	5,000 00	.... April 24, 1904
Medical College equipment.....	63 00	5,000 00	.... April 24, 1904
Medical College equipment.....	189 00	15,000 00	.... April 24, 1904
Medical College equipment.....	94 50	7,500 00	.... April 24, 1904
Medical College equipment.....	31 50	2,500 00	.... April 24, 1904
Medical College equipment.....	126 00	10,000 00	.... April 24, 1904
Medical College equipment.....	47 50	2,500 00	.... April 24, 1902
Medical College equipment.....	126 00	10,000 00	.... April 24, 1904
Steam-boiler, Mechanical and Electrical Engineering Building (accident).....	80 00	10,000 00	December 9, 1903
Steam-boiler, Library (accident).....	40 00	5,000 00	December 9, 1903

INSURANCE—Continued.

	Premium.	Amount.	Date of Expiration.
Steam-boiler, Conservatory (accident).....	\$40 00	\$5,000 00	. December 9, 1903
Steam-boiler, Gymnasium (accident).....	40 00	5,000 00	... January 1, 1904
Steam-boiler, East Hall (accident)	40 00	5,000 00	... January 13, 1902
Steam-boiler, Chemical Building (accident)...	40 00	5,000 00	... January 13, 1902
Steam-boiler, Agricultural Bldg. (accident)...	40 00	5,000 00	.... October 13, 1902
Steam-boiler, Mining Building (accident)...	40 00	5,000 00	. December 9, 1903

That portion of the foregoing insurance inclosed in brace was placed prior to the gift of the property, and was turned over to the University.

All of which is respectfully submitted.

W. A. McKOWEN,
Acting Secretary.

THE UNIVERSITY LIBRARY IN 1899-1901.

To the President of the University,

SIR: I have the honor to report on the growth and work of the University Library during the two academic years 1899-1900 and 1900-1901.

ATTENDANCE OF READERS.

The all-day average of readers during March, 1900, was 128.3, and in April, 1901, was 131.9 persons, which may be considered the minimum averages for the two years. They apparently indicate a decrease of the attendance since 1894, but for the last year the count has been taken even at the drill hour of the battalion, the hour of University assembly, and special meetings of students, and the month of March, 1900, was unusually and uniformly pleasant. In the matter of attendance and use we are more than holding our own. Especially is this true of the evening attendance, which has risen from an average of 34.4 in 1898-99, to 39.8 in 1899-1900, and 44.9 in 1900-1901; so that in the coming year we propose additional service in the evening.

GROWTH.

On the accessions register our number has reached 84,730 volumes, to which should be added 3,500 uncatalogued books of the Semitic and Hallidie collections, as well as recent purchases, making a total of over 88,000 volumes in the Library at present date (July 1, 1901).

The accessions for the two years may be summarized as follows:

	1899-1900.	1900-1901.
(a) By purchase (Reese Fund).....volumes	770	1,535
By purchase (Semitic Fund).....	19	5
By purchase (Moffitt Fund).....	60	101
By purchase (Sather Fund).....	--	44
By purchase (Summer Session Fund, 1900).....	--	216
By purchase (General Fund).....	1	56
By purchase for department libraries.....	62	61
(b) By exchange	65	38
(c) By periodicals bound (General Fund).....	816	369
(d) By gift	1,408	1,858
By gift to department libraries.....	121	123
Total volumes	3,322	4,406
Pamphlets by gift.....	4,019	4,927

Among the more important purchases may be mentioned: Arber's Transcripts of the registers of the Stationer's Company, Aulard's *Recueil des actes du Comité de Salut Public*, Cayley's Collected mathematical papers, *Corpus inscriptionum Atticarum*, Dieterici's *Philosophie der Araber*, Jefferson's Writings edited by Ford, La Fontaine edited by Regnier, Napoléon's Correspondance (32 vols.), Oppolzer's *Bahnbestimmung der Kometen*, Sorauer's *Atlas der Pflanzenkrankheiten*, Spenser's Works edited by Grosart, and Schimper's *Bryologia Europea*.

By purchase also were acquired the following periodicals:

American Historical Association Papers.....	5 vols.
Berichte der deutschen botanischen Gesellschaft	14
Brussels. Académie Royale. Bulletin.....	126
Byzantinische Zeitschrift	9
Bulletin de correspondance Hellénique.....	22
Cassier's magazine	15
Deutsche Zeit- und Streitfragen.....	19
Deutsche archæologisches Institut in Athen.....	24
Hermes (completing set).....	34
Munich. Akademie d. Wissenschaften.....	43
Society for psychical research (completing set)	10

By exchange of duplicates with Harvard University and the New York Public Library we acquired 103 volumes of new works.

GIFTS IN 1899-1900.

Regent E. A. Denicke (October 26, 1899,) gave \$1,000 in money toward the establishment of a larger library endowment; and Mr. James K. Moffitt, of the Class of 1886, \$200.

Mrs. Phœbe A. Hearst presented the truly magnificent set of Piranesi's Opere, as well as a handsome walnut case to contain it, and a set of the World's best orations in the "destroyed-plate" edition.

From Mrs. J. C. Ainsworth was received the *Description de l'Egypte* (known as Napoléon's);—from M. le Duc J. F. de Loubat, several facsimile reproductions of Mexican manuscripts;—from Mrs. Frances Grayson Crane, the scientific manuscripts, correspondence, and literary remains of the late Colonel Andrew Jackson Grayson, the eminent ornithologist;—from Professor W. A. Setchell, the expensive work, "Universities and Their Sons," and 24 volumes of botanical magazines.

Valued donations of works were made by Dr. J. H. Parkinson, of Sacramento, and B. A. Barney, of Menlo Park.

The grand etching of Rome in 1765, by Giuseppe Vasi, suitably framed, was presented by Mr. George H. Mastick of Alameda;—Dr. Daniel C. Gilman sent several interesting original pencil sketches of San Francisco, Benicia, etc., drawn in 1851 by D. W. Coit;—Assistant Professor W. D. Armes gave 62 Houseworth and Bradley & Rulofson's photographs

of California celebrities;—and Charles S. Capp, of San Francisco, sent a medal commemorative of Abraham Lincoln, struck in 1865.

A marble bust of Governor Henry Huntly Haight was presented by his family.

GIFTS IN 1900-1901.

Donations of money for the purchase of books have been received from Mrs. Jane Krom Sather (see Secretary's report);—Mr. James K. Moffitt (\$200, being his fifth gift);—Rev. Dr. Jacob Voorsanger (\$100 for Semitic books);—The Class of 1890, Univ. Cal. (\$36.50);—Mr. G. E. Fauchaux (\$15);—and from R. B., an alumnus of 1900 (\$5).

Mrs. M. E. Hallidie presented the library of our late Regent A. S. Hallidie, which numbered about 2,500 volumes, and is rich in technical literature. It includes a number of valuable periodical sets new to our library, and others, which are duplicates, will probably be transferred to the Wilmerding School, in which Mr. Hallidie was so deeply interested. An oil portrait of Regent Hallidie, painted by Harriet Foster Beecher and presented by Mrs. Hallidie in March, 1901, has been hung in the south reading-room.

Sincere thanks are due Mr. D. M. Delmas, formerly Regent of the University, for a finely-bound copy of his *Speeches and Addresses*—one of a special edition of thirty-five copies; and to Mr. G. T. Winterburn for his design for the Sather book-plate.

From the Pacific Theological Seminary were received 129 volumes; from President B. I. Wheeler, numerous books and pamphlets; from Mrs. E. V. Hathaway, a set of the *San Francisco Town Talk, 1857-60*, in seven bound volumes; and the *American Guernsey herd-register* and the *Holstein-Friesian herd-book* were secured for us by Professor Leroy Anderson from the Associations.

COLLECTION OF CALIFORNIA AUTHORS.

Autograph poems, presented by Ambrose Bierce, John Vance Cheney, Charles Mills Gayley, Edwin Markham, and Joaquin Miller, and one by the late Professor Edward Rowland Sill given by Miss M. W. Shinn, have been framed and hung on the walls of the library. Mr. Samuel Putnam Avery, of New York, gave, besides numerous books, five steel prints of early California scenes. Mr. Charles Howard Shinn has been interested in securing for the collection many pamphlets and books from out-of-the-way places in the State, some of them of extreme rarity.

The following authors have contributed books, generally enriched with autograph: Dr. Albert Abrams, S. T. Alexander, Dr. Jerome A. Anderson, James T. Barry, Edward H. Benjamin, Dr. C. C. Benson, Rev. Charles R. Brown, W. A. Carney, W. E. Chapin, Prof. S. B. Christy, Fred H. Clark, U. C. 1882, E. J. David, D. M. Delmas, Elmer E.

Drew, Miss Ella Ferré, Capt. Robert H. Fletcher, Prof. F. H. Foster, I. C. Hatch, Franklin H. Heald, Mrs. S. E. A. Higgins, Prof. E. W. Hilgard, Mrs. E. H. Holloway, W. O. Howe, Dr. W. L. Jepson, Dr. Joseph Le Conte, Dr. E. P. Lewis, Joy Lichtenstein, Jack London, David Lubin, Edwin Markham, Mrs. J. E. Mathis, Prof. Sidney E. Mezes, Frances M. Milne, W. C. Morrow, Mrs. E. B. Powell, Dr. J. P. Schmitz, Dr. J. H. Senger, C. H. Shinn, E. H. Simonds, Prof. F. Slate, J. H. Stallard, Arthur I. Street, U. C. 1890, Morrison I. Swift, Edward Robeson Taylor, John W. Taylor, I. N. Vail, Rev. Jacob Voorsanger, Pres. Benjamin Ide Wheeler, and Rev. Samuel H. Willey.

LOSSES.

We regret to note at our annual inventories an increasing number of books unaccounted for. The stock-taking in 1900 showed 238 volumes not found, and 35 volumes found of those previously missing; net loss, 203 volumes. In 1901, 190 volumes were missing, and 144 were found; net loss, 46 volumes. The 1901 inventory was made far more rapidly than that in 1900, for which reason, on account of temporary misplacement of books, the apparent loss in 1900 was greater than the actual.

In 1901 the greatest numbers of missing books were in English Fiction (24 vols.), English Literature (18 vols.), Mathematics (15 vols.), Civil Engineering (13 vols.), Mining and Latin (12 vols. each). It should be understood that *every* book, not found on the shelves or charged to a borrower, is accounted as lost, and no attempt is made to lessen losses by attributing absence of books to inevitable error or negligence on the part of book-borrowers and charging-clerks. We prefer that our statistics in this as in other matters should be exact.

In reality the total annual loss is quite small in comparison with the size of the library and the great number of people enjoying unrestricted access to the shelves.

NEW EXCHANGES

have been opened with the following institutions:

- Bern, Switzerland. Universität.
- Canadian Society of Civil Engineers, Montreal.
- Denison Scientific Association, Granville, O.
- Fribourg, Switzerland. Université.
- Hannover, Prussia. Naturhistorische Gesellschaft.
- Manchester (England) Literary and Philosophical Society.
- Maryland Geological Survey.
- Marseille Faculté des Sciences.
- Moscow Société Impériale des Naturalistes.
- Ohio State Archæological and Historical Society.
- Philadelphia Engineers' Club.
- Wisconsin Geological and Natural History Survey.

INTER-LIBRARY LOANS.

We have had the pleasure of *loaning* books to Los Angeles Public Library (once), Redlands Smiley Library (twice), San Francisco Public Library (twice), Santa Rosa Public Library (four times), Stanford University (five times), and University of Oregon (thrice).

We have *borrowed* once from Clark University, Oakland Public Library, Princeton University, New York State Library, San Francisco Mechanics' Institute, University of Virginia, Yale University, and 21 volumes at one borrowing from Stanford University. The California State Library has loaned us four volumes, and on three occasions Columbia University, the Lick Observatory, and the San Francisco Public Library have each favored us.

A number of our graduates, living elsewhere in the State and in Nevada, under the five-dollar deposit rule, have had books sent them.

A new rule has been adopted also whereby residents of Berkeley, unconnected with the University, are permitted to draw books for purposes of serious study upon depositing ten dollars with the Secretary. This privilege, which has not been advertised prominently, is intended to be sparingly granted, and principally to scientists, professors, and students who make the University town their temporary home.

The summer session brings within our walls annually a swarm of earnest students, and the use of the library is thereby increased fully one fifth.

During the next academic year the daily hours of opening will be increased, and on Saturday afternoon the hour of closing will be at three, instead of one o'clock.

An eight-months' leave of absence in 1900 gave the undersigned an opportunity to make careful examination of library systems and buildings in the Eastern States and in Europe, and he gained much information which, he trusts, may be of practical value to the University. It affords me much pleasure to draw attention to the excellent conduct of the library affairs during my absence by Assistant Librarian J. D. Layman, who put in operation a new charging system, insuring greater rapidity and accuracy.

Large and important accessions of books are to be made during the coming years, and the problem of storing them, as well as of accommodating readers, will become more and more difficult, until it is finally solved by the erection of a new building. The planning of this building claims and will receive our immediate attention.

Very respectfully submitted.

J. C. ROWELL,
Librarian.

REPORT ON UNIVERSITY PUBLICATIONS.

Name of Publication.	Received from Printer	To Author	To Library	Exchange, Gift	To Reviews	To Subscribers	Sold	On Hand, July 1, 1901	Receipts
Geology Bulletin, Vol. 1, No. 1				15			6	212	\$1 50
" " " " 2				16			6	208	60
" " " " 3				16			3	216	1 20
" " " " 4				16			6	207	2 40
" " " " 5-6				15			5	220	1 50
" " " " 7				15			5	227	2 25
" " " " 8				15			8	250	2 40
" " " " 9				16			2	258	50
" " " " 10				16			1	224	10
" " " " 11				16			9	259	1 80
" " " " 12				16			1	268	20
" " " " 13				17			2	289	20
" " " " 14				16			5	264	2 25
Geology Bulletin, Vol. 2, No. 1				21			4	160	2 60
" " " " 2				21			3	193	30
" " " " 3				21			1	193	10
" " " " 4				23		1	7	347	70
" " " " 5	542		2	192	14	83	11	240	2 75
" " " " 6	599	63	2	197	14	83	6	234	1 20
" " " " 7	547		2	198	14	83	3	247	1 20
" " " " 8	598	60	2	81	14	83	1	357	30
" " " " 9	522		2	80	14	84		342	
Geology Bulletin, Vol. 1 (complete)							4		14 00
University Studies, Vol. 1, No. 1	253	5		8	2		69	211	17 25
" " " " 2	250	5		7	2		70	170	17 50
" " " " 3-4		5		68	2		95	426	66 50
" " Vol. 2, No. 1		6		7			79	312	39 50
Bradley's Studies in Literature	1,014						68	946	3 40
Total sales 1899-1900, 1900-1901									\$184 20
Previously reported									747 20
Total sales 1893-1901									\$931 40

J. C. ROWELL,
Librarian.

BIENNIAL REPORT OF THE TRUSTEES

OF THE

CALIFORNIA STATE LIBRARY

FOR THE

FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS.

July 1, 1900, to June 30, 1902.



SACRAMENTO:

A. J. JOHNSTON, : : : : : SUPERINTENDENT STATE PRINTING.

1902.

REPORT OF THE TRUSTEES OF THE CALIFORNIA STATE LIBRARY.

SACRAMENTO, CAL., June 30, 1902.

To His Excellency HENRY T. GAGE, *Governor of California:*

Herewith we hand you the report of Hon. J. L. Gillis, State Librarian, for the past two years, the same being fiscal years fifty-two and fifty-three. It gives a good idea of the work done in the Library for the period covered.

It has been the aim of the present management of the Library to make the institution as valuable as possible to all its patrons. To accomplish this result, a modern system of indexing was adopted, and it has been proceeded with as rapidly as possible. It is no small task to thus shelf-list and properly index more than one hundred and twenty thousand volumes. Those having the work in hand have been industrious and have made good progress. They are thus adding greatly to the value of the Library for reference purposes.

There being no active State historical society in California, we are endeavoring to do the work that would naturally belong to such an organization. Much has been accomplished in this direction in the last four years. Volumes of early newspaper publications have been secured, and these are being indexed so that their contents can be easily traced by persons making use of them. This is really a great and important work and has been found to be highly appreciated by those having occasion to refer to it. Then, too, there is a continual search for books, pamphlets, etc., treating of both early and later events of California history. This is destined to become a very interesting and valuable section of the State Library.

With many people there is a mistaken idea as to the character of the books being secured and classified. In our purchases, only standard works of permanent value are taken. This will be seen by an inspection of the bulletins issued quarterly. The money of the people is not spent for current fiction, but for books of merit, treating on the great industrial and scientific questions of our time. It is our aim to keep the several departments of the Library up to date in all respects.

Your attention is especially called to the report of the State Librarian. It is full and complete. The suggestion in regard to the need of room

should not be ignored. As stated by the Librarian, there is but one State library in the United States that is larger than ours, and we should have room for steady growth.

Respectfully submitted.

ALLEN B. LEMMON,
President,

W. C. VAN FLEET,
BRADNER W. LEE,
DR. THOMAS FLINT,
JOSEPH STEFFENS,

Board of Trustees of the California State Library.

REPORT OF THE LIBRARIAN.

To the Honorable Board of Trustees of the California State Library:

GENTLEMEN: I have the honor of submitting my report for the fifty-second and fifty-third fiscal years, which covers the transactions of the State Library for the period mentioned, ending June 30, 1902.

In this report you will find a brief statement of the condition of each department, with an explanation of the work done in accordance with your recommendations and sanction.

FINANCES.

The finances of the Library are in a most satisfactory condition. At the last session of the Legislature, the law providing for the maintenance of the State Library was changed. Prior to that time, all the fees received by the Secretary of State for filing of articles of incorporation, etc., were turned over to the Library and constituted the Library Fund. This law was changed, as above stated. The fees of the office of Secretary of State being greatly increased, a fixed sum of \$2,500 per month was set aside for the support of the Library. This amount has proved ample for the purpose, paying all current expenses, including printing and binding for the Library, for which a separate appropriation has heretofore been made, as well as providing a small surplus for emergencies. The following statement shows the condition of the fund at the present time:

Balance on hand July 1, 1900.....	\$11,488 65
Amount received during fifty-second and fifty-third fiscal years.....	65,334 95
Total.....	\$76,823 60
Expenditures during fifty-second and fifty-third fiscal years	50,668 67
Balance, June 30, 1902.....	\$26,154 93
Increase in fund	\$14,666 28

A statement in detail is included in this report, showing all the items of the above expenditures.

BOOKS.

On June 30, 1900, the State Library contained 113,651 volumes. On June 30, 1902, our closing number was 120,200, an increase of 6,549 volumes, divided as follows:

By purchase.....	3,746 vols.
By subscription	810
By exchange	867
By donation.....	1,126
Total.....	6,549

PRINTING AND BINDING.

The Legislature of 1899 made an appropriation for printing and binding for the State Library of \$5,550 for the fifty-first and fifty-second fiscal years, and the Legislature of 1901 added \$500 to complete the work, making a total of \$6,050.

When the law was changed relative to the Library Fund, making a fixed income of \$2,500 per month, it was decided not to ask for an appropriation for printing and binding, and the expense has since been paid out of the Library Fund.

SHELF-LIST.

The shelf-list, now in course of preparation, is being completed as fast as possible, and a card index-case, to hold 75,000 cards, has been ordered. The list, as far as finished, will then be placed ready for use. It will show at a glance the books in every class in the Library, with class number, title, and accession number.

A new Hammond typewriter was purchased for use in this work.

NEWSPAPER DEPARTMENT.

Since my last report, this department has been increased by 265 volumes, making a total of 2,000 volumes of daily and weekly California newspapers.

The work of indexing a file of California newspapers, beginning with the "Californian," published in Monterey, August 15, 1846, has been completed up to 1873. It is the intention to increase the force now engaged in this work, for the purpose of indexing a current daily paper and assisting in bringing the back work up to date.

The results obtained from this index have been so satisfactory that there can be no question about the necessity of completing it as early as circumstances will permit.

LIBRARY BULLETIN.

The Quarterly Bulletin, issued by the State Library, has proved to be a valuable source of information to those interested in the Library, as well as a great convenience to those directly connected with it. A complete file from September, 1899, to date, will show all the books acquired in that time by purchase and donation.

DONATIONS.

I have to report that Mr. G. K. Fitch, of San Francisco, donated to the State Library two bound volumes of the Sacramento "Transcript," covering the period from April, 1850, to March 29, 1851, and that proper acknowledgment thereof has been made.

IMPROVEMENTS.

On the second floor a new carpet has been laid and five new stacks placed in position, giving about 300 feet additional shelf room.

The Magazine gallery has been extended to take in the west wall. The top eight shelves are now accessible, and the shelf room has been increased about 130 feet.

A new carpet has been laid in the Political room. The dome above the main floor has been cleaned and regilded, and the steam-heating pipes under the Library were covered with asbestos.

CLEANING.

The Library was closed for two weeks in August of 1902 for the purpose of having it thoroughly cleaned. Carpets were taken up, books moved and shelves dusted, chandeliers cleaned, etc. Repairs, where necessary, were made during this time.

In concluding this brief report, I believe it my duty to call the attention of your Honorable Board to the crowded condition of the Library, and suggest that some action be taken looking to a plan that will provide more room. I can not recommend any particular arrangement at the present time, but in view of the limited space that we have before us, it can be readily seen that in a year at the outside every foot of available shelf room will be occupied, with no apparent opportunity for expansion. With the exception of the Reference room and Law Department, the Library is practically full, but by constantly changing and re-arranging the books we can probably go along for another year with what space we have at our command. We receive annually, from all sources, an average of 3,500 volumes; but if opportunity occurred to purchase a number of books, for instance a private library which for some cause might be placed on the market, we would have absolutely no space to receive them. Next to New York, the California State Library is the largest State Library in the United States, and with the law permitting and room for the proper conduct of the business of the Library, it could be made as broad and far reaching in its usefulness as that of New York.

Respectfully submitted.

J. L. GILLIS,
State Librarian.

FINANCIAL STATEMENT.

DEBITS FOR THE FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS.

1900—July 1	To balance on hand.....	\$339 80
Aug. 4	To warrant.....	2,152 87
Sept. 1	To warrant.....	4,174 80
Sept. 24	To sale of books.....	10 00
Sept. 25	To sale of carpet.....	40 00
Oct. 6	To warrant.....	3,530 03
Nov. 7	To warrant.....	2,209 56
Dec. 4	To warrant.....	2,428 78
1901—Jan. 5	To warrant.....	2,349 04
Feb. 5	To warrant.....	1,685 55
Mar. 5	To warrant.....	1,340 15
April 2	To warrant.....	1,690 32
April 5	Returned by L. R. Dempster.....	15 00
May 4	To warrant.....	1,611 44
June 6	To warrant.....	1,858 11
July 6	To warrant.....	1,956 71
Aug. 1	To warrant.....	2,012 90
Sept. 7	To warrant.....	1,981 90
Sept. 18	To sale of carpet.....	5 00
Oct. 12	To warrant.....	2,636 47
Nov. 2	To warrant.....	2,747 71
Nov. 4	To sale of carpet.....	20 00
Dec. 7	To warrant.....	1,589 35
1902—Jan. 4	To warrant.....	1,615 78
Feb. 1	To warrant.....	2,111 91
Mar. 5	To warrant.....	1,555 35
April 3	To warrant.....	2,035 86
May 2	To warrant.....	1,779 18
June 7	To warrant.....	1,675 85
June 30	To warrant.....	1,939 05
Total.....		\$51,098 47

CREDITS FOR THE FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS.

Date.	To Whom Paid.	Item.	V'chr	Amount Dr.	Amount Cr.
1900				\$51,098 47	
Aug. 4	The Bancroft Co.....	Books.....	4489		\$100 00
Aug. 4	Charles Scribner's Sons.....	Books.....	4490		100 00
Aug. 4	Whitaker & Ray.....	Books.....	4491		91 08
Aug. 4	John J. Newbegin.....	Books.....	4492		75 00
Aug. 4	West Publishing Co.....	Books.....	4493		61 50
Aug. 4	Joel Munsell's Sons.....	Books.....	4494		48 15
Aug. 4	Bancroft-Whitney Co.....	Books.....	4495		35 75
Aug. 4	Fred P. Kaiser.....	Books.....	4496		13 50
Aug. 4	Burrows Bros.....	Books.....	4497		7 00
Aug. 4	Ballard Publishing Co.....	Books.....	4498		6 50
Aug. 4	Boston Book Co.....	Books.....	4499		5 75
Aug. 4	C. D. Cazenove.....	Books.....	4500		5 33
Aug. 4	Mrs. J. J. Owen.....	Books.....	4501		5 00
Aug. 4	Samuel Moote.....	Books.....	4502		1 00
Amounts carried forward.....				\$51,098 47	\$555 56

CREDITS FOR THE FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS—Continued.

Date.	To Whom Paid.	Item.	V'chr	Amount Dr.	Amount Cr.
1900	Amounts brought forward.			\$51,098 47	\$555 56
Aug. 4	"Call"	Subscription	4503		5 20
Aug. 4	Democrat Publishing Co.	Subscription	4504		5 00
Aug. 4	Mining and Scientific Press	Subscription	4505		3 00
Aug. 4	Whitaker & Ray Co.	Subscription	4506		3 00
Aug. 4	Am. Stat. Association	Subscription	4507		2 00
Aug. 4	"Bulletin"	Subscription	4508		1 50
Aug. 4	Amy Hopkins	Salary	4509		100 00
Aug. 4	S. M. Breen	Salary	4510		100 00
Aug. 4	Eudora Garoutte	Salary	4511		100 00
Aug. 4	Edith E. Cowden	Salary	4512		100 00
Aug. 4	Clara Lemmon	Salary	4513		100 00
Aug. 4	S. A. Hutchinson	Salary	4514		100 00
Aug. 4	A. L. Blanchard	Salary	4515		100 00
Aug. 4	Agnes Barrett	Salary	4516		100 00
Aug. 4	F. J. O'Brien	Salary	4517		75 00
Aug. 4	Daisy Ennis	Salary	4518		75 00
Aug. 4	J. W. Gorman	Salary	4519		22 26
Aug. 4	W. J. Weisman	Moving books	4520		75 00
Aug. 4	R. Woolf	Moving books	4521		66 00
Aug. 4	Frank D. Ryan, Jr.	Moving books	4522		27 00
Aug. 4	F. Armstrong	Moving books	4523		24 00
Aug. 4	J. F. Hill	Moving books	4524		21 00
Aug. 4	W. Lamphrey	Moving books	4525		15 00
Aug. 4	F. Fetherston	Moving books	4526		3 00
Aug. 4	Charles Palm	Window grill	4527		98 00
Aug. 4	Harry W. Rivett	Laying carpet	4528		96 84
Aug. 4	A. S. Baker	Painting, etc.	4529		50 50
Aug. 4	Sacramento Pub. Co.	Advertising	4530		12 50
Aug. 4	Wells, Fargo & Co.	Expressage	4531		15 65
Aug. 4	Cap. and Sac. Transfer Co.	Cartage	4532		7 75
Aug. 4	F. R. Pulford	Repairs	4533		7 65
Aug. 4	Sunset Tel. & Tel. Co.	Services	4534		7 00
Aug. 4	P. C. Roddy	Painting	4535		6 50
Aug. 4	Mrs. C. Mackall	Washing towels	4536		6 00
Aug. 4	Capital Tel. & Tel. Co.	Services	4537		4 50
Aug. 4	Western Union Tel. Co.	Services	4538		3 00
Aug. 4	Elect. Eng. & Supply Co.	Repairing bells	4539		1 50
Aug. 4	W. P. Fuller	Shellac	4540		70
Aug. 4	J. L. Gillis	Expenses	4541		56 26
Sept. 1	W. F. Purnell	Books	4542		496 69
Sept. 1	Whitaker & Ray	Books	4543		83 59
Sept. 1	John J. Newbegin	Books	4544		70 00
Sept. 1	Bancroft-Whitney Co.	Books	4545		40 50
Sept. 1	Boston Book Co.	Books	4546		34 50
Sept. 1	Funk & Wagnalls	Books	4547		6 42
Sept. 1	Edward Thompson Co.	Books	4548		6 00
Sept. 1	H. S. Phillips	Books	4549		6 00
Sept. 1	Massachusetts Hist. Soc.	Books	4550		2 50
Sept. 1	Forest and Stream Pub. Co.	Subscription	4551		4 00
Sept. 1	S. M. Breen	Salary	4552		100 00
Sept. 1	Eudora Garoutte	Salary	4553		100 00
Sept. 1	Edith E. Cowden	Salary	4554		100 00
Sept. 1	Clara Lemmon	Salary	4555		100 00
Sept. 1	A. L. Blanchard	Salary	4556		100 00
Sept. 1	S. A. Hutchinson	Salary	4557		100 00
Sept. 1	Agnes Barrett	Salary	4558		100 00
Sept. 1	Daisy Ennis	Salary	4559		75 00
Sept. 1	Frank J. O'Brien	Salary	4560		75 00
Sept. 1	J. W. Gorman	Salary	4561		30 00
Sept. 1	Siller Bros.	Fitting rooms	4562		1,863 50
Sept. 1	John Breuner	Furniture	4563		394 75
Sept. 1	Sunset Tel. & Tel. Co.	Tel. system, etc.	4564		85 00
Sept. 1	W. J. Weisman	Rep'ng and moving books	4565		63 00
Sept. 1	R. Woolf	Moving books	4566		12 00
Sept. 1	Library Bureau	Label holders	4567		22 50
Sept. 1	A. S. Baker	Painting	4568		6 50
	Amounts carried forward.			\$51,098 47	\$6,230 32

CREDITS FOR THE FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS—Continued.

Date.	To Whom Paid.	Item.	V'chr	Amount Dr.	Amount Cr.
1900	Amounts brought forward			\$51,098 47	\$6,230 32
Sept. 1	Frank H. Veach	Repairing typewriter	4569		5 50
Sept. 1	Capital Tel. & Tel. Co.	Service	4570		4 50
Sept. 1	Mrs. C. Mackall	Washing towels	4571		3 50
Sept. 1	Cap. and Sac. Transfer Co.	Cartage	4572		3 35
Sept. 1	J. L. Gillis	Expenses	4573		80 50
Oct. 6	Boston Book Co.	Books	4574		283 79
Oct. 6	H. H. Moore	Books	4575		74 75
Oct. 6	H. P. McKusick	Books	4576		54 00
Oct. 6	Joel Munsell's Sons	Books	4577		41 85
Oct. 6	John J. Newbegin	Books	4578		40 00
Oct. 6	W. W. Hoag Co.	Books	4579		30 15
Oct. 6	D. Johnston & Co.	Books	4580		18 00
Oct. 6	Bancroft-Whitney Co.	Books	4581		16 00
Oct. 6	Mrs. R. A. Tomes	Books	4582		10 00
Oct. 6	Edward Thompson Co.	Books	4583		6 00
Oct. 6	James D. Cockcroft	Books	4584		6 00
Oct. 6	C. D. Cazenove	Books	4585		5 40
Oct. 6	Lawyers' Co-op. Pub. Co.	Books	4586		5 00
Oct. 6	Publishers' Weekly	Books	4587		3 20
Oct. 6	Pacific Sub. Agency	Periodicals	4588		197 86
Oct. 6	Sol Harris	Subscription	4589		4 75
Oct. 6	Catholic World	Subscription	4590		3 00
Oct. 6	S. M. Breen	Salary	4591		100 00
Oct. 6	Eudora Garoutte	Salary	4592		100 00
Oct. 6	Edith E. Cowden	Salary	4593		100 00
Oct. 6	Agnese Barrett	Salary	4594		100 00
Oct. 6	S. A. Hutchinson	Salary	4595		100 00
Oct. 6	A. L. Blanchard	Salary	4596		100 00
Oct. 6	Clara Lemmon	Salary	4597		100 00
Oct. 6	Frank J. O'Brien	Salary	4598		75 00
Oct. 6	Daisy Ennis	Salary	4599		75 00
Oct. 6	J. W. Gorman	Salary	4600		30 00
Oct. 6	George B. Stack	Plumbing	4601		897 28
Oct. 6	Locke & Lavenson	Carpets, etc.	4602		569 68
Oct. 6	James Seadler, architect	Services	4603		111 75
Oct. 6	Siller Bros.	Repairs	4604		55 61
Oct. 6	W. J. Weisman	Moving books	4605		45 00
Oct. 6	R. Woolf	Moving books	4606		16 50
Oct. 6	J. J. Calley	Moving books	4607		1 50
Oct. 6	Hook & Son	Repairs	4608		18 35
Oct. 6	Sunset Tel. & Tel. Co.	Service	4609		10 60
Oct. 6	Secretary of Arizona	List of corporations.	4610		5 00
Oct. 6	Capital Tel. & Tel. Co.	Service	4611		4 50
Oct. 6	Wells, Fargo & Co.	Expressage	4612		3 95
Oct. 6	J. O. Coleman, P. M.	Box rent	4613		3 50
Oct. 6	Wyckoff, Seamans & Benedict	Typewriter cylinder	4614		3 25
Oct. 6	Mrs. C. Mackall	Washing towels	4615		3 00
Oct. 6	Thomas Fraser	Notary fees	4616		2 50
Oct. 6	J. A. Green	Alcohol, etc.	4617		1 70
Oct. 6	J. L. Gillis	Expenses	4618		96 61
Nov. 7	D. Appleton & Co.	Books	4619		126 00
Nov. 7	W. F. Purnell	Books	4620		98 76
Nov. 7	West Publishing Co.	Books	4621		53 25
Nov. 7	Whitaker & Ray	Books	4622		43 28
Nov. 7	Bancroft-Whitney Co.	Books	4623		43 00
Nov. 7	D. Johnston & Co.	Books	4624		30 00
Nov. 7	John J. Newbegin	Books	4625		20 00
Nov. 7	The Carswell Co.	Books	4626		7 50
Nov. 7	Wm. Wood & Co.	Books	4627		7 50
Nov. 7	Burrows Bros.	Books	4628		7 00
Nov. 7	B. F. Stevens & Brown	Books	4629		6 36
Nov. 7	T. H. Atkins	Books	4630		5 00
Nov. 7	Massachusetts Hist. Soc.	Books	4631		3 22
Nov. 7	Williamson Law Book Co.	Books	4632		1 50
Nov. 7	P. N. Ashley	Map	4633		10 00
Nov. 7	Engineering Record	Subscription	4634		5 00
	Amounts carried forward			\$51,098 47	\$10,325 07

CREDITS FOR THE FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS—Continued.

Date.	To Whom Paid.	Item.	V'chr	Amount Dr.	Amount Cr.
1900	Amounts brought forward			\$51,098 47	\$10,325 07
Nov. 7	San Francisco "Call"	Subscription	4635		3 90
Nov. 7	American Hist. Ass'n	Subscription	4636		3 00
Nov. 7	Pacific Sub. Agency	Subscription	4637		1 15
Nov. 7	S. M. Breen	Salary	4638		100 00
Nov. 7	Eudora Garoutte	Salary	4639		100 00
Nov. 7	Edith Cowden	Salary	4640		100 00
Nov. 7	Clara Lemmon	Salary	4641		100 00
Nov. 7	A. L. Blanchard	Salary	4642		100 00
Nov. 7	S. A. Hutchinson	Salary	4643		100 00
Nov. 7	Agnese Barrett	Salary	4644		100 00
Nov. 7	F. J. O'Brien	Salary	4645		75 00
Nov. 7	Daisy Ennis	Salary	4646		75 00
Nov. 7	J. W. Gorman	Salary	4647		30 00
Nov. 7	Locke & Lavenson	Carpet	4648		689 24
Nov. 7	W. J. Weisman	Moving and repair- ing books	4649		54 00
Nov. 7	Siller Bros.	Shelves	4650		19 00
Nov. 7	Hook & Son	Book frame, repairs	4651		16 00
Nov. 7	Sunset Tel. & Tel. Co.	Service	4652		10 00
Nov. 7	Sullivan-Kelly Co.	Painting	4653		8 10
Nov. 7	Tom Scott	Repairing lights	4654		7 00
Nov. 7	Cap. and Sac. Transfer Co.	Cartage	4655		6 85
Nov. 7	F. R. Pulford	Locks and keys	4656		5 25
Nov. 7	Wells, Fargo & Co.	Expressage	4657		4 70
Nov. 7	Capital Tel. & Tel. Co.	Service	4658		4 50
Nov. 7	Western Union Tel. Co.	Clock rental	4659		3 00
Nov. 7	Mrs. C. Mackall	Washing towels	4660		3 00
Nov. 7	Elect. Eng. and Supply Co.	Bells	4661		2 25
Nov. 7	Henry E. Sleeper	Rubber stamp	4662		1 25
Nov. 7	J. L. Gillis	Expenses	4663		20 00
Dec. 4	W. F. Purnell	Books	4664		262 30
Dec. 4	The Bancroft Co.	Books	4665		100 00
Dec. 4	Joel Munsell's Sons	Books	4666		94 05
Dec. 4	Whitaker & Ray Co.	Books	4667		63 04
Dec. 4	Lawyers' Co-op. Pub. Co.	Books	4668		41 35
Dec. 4	Bancroft-Whitney Co.	Books	4669		35 50
Dec. 4	B. F. Stevens & Brown	Books	4670		19 22
Dec. 4	D. Johnston & Co.	Books	4671		12 50
Dec. 4	Boston Book Co.	Books	4672		12 26
Dec. 4	Samuel Moote	Books	4673		7 00
Dec. 4	Mrs. M. L. D. Libby	Books	4674		2 25
Dec. 4	W. B. Walkup	Map	4675		20 00
Dec. 4	J. L. Jackson	Subscription	4676		7 80
Dec. 4	"Evening Post"	Subscription	4677		4 50
Dec. 4	Lyons G. Tyler	Subscription	4678		3 00
Dec. 4	S. M. Breen	Salary	4679		100 00
Dec. 4	Eudora Garoutte	Salary	4680		100 00
Dec. 4	Edith E. Cowden	Salary	4681		100 00
Dec. 4	Clara Lemmon	Salary	4682		100 00
Dec. 4	A. L. Blanchard	Salary	4683		100 00
Dec. 4	S. A. Hutchinson	Salary	4684		100 00
Dec. 4	Agnese Barrett	Salary	4685		100 00
Dec. 4	Daisy I. Ennis	Salary	4686		75 00
Dec. 4	Frank J. O'Brien	Salary	4687		75 00
Dec. 4	J. W. Gorman	Salary	4688		30 00
Dec. 4	Locke & Lavenson	Carpet, Law Dept.	4689		683 00
Dec. 4	Harry W. Rivett	Cleaning carpets	4690		36 60
Dec. 4	W. J. Weisman	Moving and repairs	4691		54 30
Dec. 4	Tom Scott	Plumbing	4692		13 50
Dec. 4	Hicks-Judd Co.	Supplies	4693		12 95
Dec. 4	Sunset Tel. & Tel. Co.	Service	4694		10 00
Dec. 4	Wells, Fargo & Co.	Expressage	4695		6 90
Dec. 4	Capital Tel. & Tel. Co.	Service	4696		4 50
Dec. 4	Cap. and Sac. Transfer Co.	Cartage	4697		3 01
Dec. 4	Mrs. C. Mackall	Washing towels	4698		3 00
Dec. 4	J. L. Gillis	Expenses	4699		36 25
	Amounts carried forward			\$51,098 47	\$14,496 04

CREDITS FOR THE FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS—Continued.

Date.	To Whom Paid.	Item.	V'chr	Amount Dr.	Amount Cr.
1901	Amounts brought forward			\$51,098 47	\$14,496 04
Jan. 5	Whitaker & Ray	Books	4700		45 60
Jan. 5	West Publishing Co.	Books	4701		45 30
Jan. 5	J. H. Corbin	Books	4702		35 00
Jan. 5	Bancroft-Whitney Co.	Books	4703		27 75
Jan. 5	C. D. Cazenove	Books	4704		10 70
Jan. 5	Canada Law Book Co.	Books	4705		10 50
Jan. 5	Boston Book Co.	Books	4706		9 50
Jan. 5	P. S. King & Son	Books	4707		7 15
Jan. 5	Matthew Bender	Books	4708		6 30
Jan. 5	Hubbell Publishing Co.	Books	4709		5 35
Jan. 5	Elder & Shepard	Books	4710		5 00
Jan. 5	Robt. E. Cowden	Books	4711		4 40
Jan. 5	O. C. Lewis Co.	Books	4712		4 00
Jan. 5	Irvine Shepard	Books	4713		2 00
Jan. 5	J. F. Slater	Books	4714		1 50
Jan. 5	A. M. Doty	Books	4715		1 00
Jan. 5	Frank Shepard	Annotations	4716		45 50
Jan. 5	Pacific Sub. Agency	Subscription	4717		337 85
Jan. 5	"Examiner"	Subscription	4718		7 80
Jan. 5	"Bee"	Subscription	4719		6 60
Jan. 5	San José "Herald"	Subscription	4720		5 00
Jan. 5	Geological Society of Amer.	Subscription	4721		5 00
Jan. 5	S. F. "Chronicle"	Subscription	4722		3 90
Jan. 5	S. F. "Bulletin"	Subscription	4723		3 00
Jan. 5	Southern Hist. Assoc.	Subscription	4724		3 00
Jan. 5	S. M. Breen	Salary	4725		100 00
Jan. 5	Eudora Garoutte	Salary	4726		100 00
Jan. 5	Clara Lemmon	Salary	4727		100 00
Jan. 5	Edith E. Cowden	Salary	4728		100 00
Jan. 5	Agnese Barrett	Salary	4729		100 00
Jan. 5	A. L. Blanchard	Salary	4730		100 00
Jan. 5	S. A. Hutchinson	Salary	4731		100 00
Jan. 5	Daisy I. Ennis	Salary	4732		75 60
Jan. 5	Frank J. O'Brien	Salary	4733		75 00
Jan. 5	J. W. Gorman	Salary	4734		30 00
Jan. 5	John Breuner Co.	Furniture	4735		424 30
Jan. 5	George B. Stack	Plumbing	4736		120 00
Jan. 5	A. S. Baker	Repairs	4737		67 00
Jan. 5	W. J. Weisman	Moving and repairs	4738		61 80
Jan. 5	Hook & Son	Repairs	4739		56 15
Jan. 5	Union Ice Co.	Ice, six months	4740		18 40
Jan. 5	T. J. Pennish	Repairs	4741		12 75
Jan. 5	Sunset Tel. & Tel. Co.	Service	4742		10 35
Jan. 5	Capital Tel. & Tel. Co.	Service	4743		4 50
Jan. 5	J. O. Coleman, P. M.	Box rent	4744		3 50
Jan. 5	Mrs. C. Mackall	Washing towels	4745		3 00
Jan. 5	Wells, Fargo & Co.	Service	4746		2 05
Jan. 5	Western Union Tel. Co.	Service	4747		1 54
Jan. 5	J. L. Gillis	Expenses	4748		45 00
Feb. 5	W. F. Purnell	Books	4749		314 17
Feb. 5	Boston Book Co.	Books	4750		57 53
Feb. 5	John J. Newbegin	Books	4751		40 00
Feb. 5	Bancroft-Whitney Co.	Books	4752		38 25
Feb. 5	George Barrie & Son	Books	4753		30 00
Feb. 5	Jordan & Thomas	Books	4754		28 00
Feb. 5	Lawyers' Co-op. Pub. Co.	Books	4755		10 70
Feb. 5	James T. White	Books	4756		10 00
Feb. 5	Samuel Moote	Books	4757		10 00
Feb. 5	Edward Thompson Co.	Books	4758		6 00
Feb. 5	C. D. Cazenove	Books	4759		5 25
Feb. 5	M. L. McKenzie	Books	4760		5 00
Feb. 5	F. M. Husted	Books	4761		5 00
Feb. 5	Burrows Bros.	Books	4762		3 50
Feb. 5	L. R. Dempster	Subscription	4763		20 00
Feb. 5	S. F. "Call"	Subscription	4764		3 90
Feb. 5	Physicians' Pub. Co.	Subscription	4765		2 50
Feb. 5	Library Bureau	Subscription	4766		1 00
	Amounts carried forward			\$51,098 47	\$17,435 88

CREDITS FOR THE FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS—Continued.

Date.	To Whom Paid.	Item.	V'chr	Amount Dr.	Amount Cr.
1901	Amounts brought forward.....			\$51,098 47	\$17,435 88
Feb. 5	S. M. Breen.....	Salary.....	4767		100 00
Feb. 5	Eudora Garoutte.....	Salary.....	4768		100 00
Feb. 5	Clara Lemmon.....	Salary.....	4769		100 00
Feb. 5	Edith E. Cowden.....	Salary.....	4770		100 00
Feb. 5	A. L. Blanchard.....	Salary.....	4771		100 00
Feb. 5	Agnese Barrett.....	Salary.....	4772		100 00
Feb. 5	S. A. Hutchinson.....	Salary.....	4773		100 00
Feb. 5	Daisy I. Ennis.....	Salary.....	4774		75 00
Feb. 5	Frank J. O'Brien.....	Salary.....	4775		75 00
Feb. 5	J. W. Gorman.....	Salary.....	4776		30 00
Feb. 5	W. J. Weisman.....	Moving and repairs.....	4777		51 60
Feb. 5	John Breuner Co.....	Floor covering.....	4778		51 45
Feb. 5	Charles Walsh.....	Services.....	4779		50 00
Feb. 5	Sunset Tel. & Tel. Co.....	Service.....	4780		10 00
Feb. 5	Cap. and Sac. Transfer Co.....	Cartage.....	4781		5 25
Feb. 5	Capital Tel. & Tel. Co.....	Service.....	4782		4 50
Feb. 5	Mrs. C. Mackall.....	Washing towels.....	4783		3 50
Feb. 5	F. R. Pulford.....	Keys.....	4784		2 50
Feb. 5	Wells, Fargo & Co.....	Expressage.....	4785		1 45
Feb. 5	J. L. Gillis.....	Expenses.....	4786		34 50
Mar. 5	W. F. Purnell.....	Books.....	4787		70 33
Mar. 5	Bancroft-Whitney Co.....	Books.....	4788		47 75
Mar. 5	Boston Book Co.....	Books.....	4789		46 92
Mar. 5	P. S. King & Son.....	Books.....	4790		15 56
Mar. 5	D. Johnston & Co.....	Books.....	4791		13 50
Mar. 5	Payot, Upham & Co.....	Books.....	4792		7 14
Mar. 5	Edward Thompson Co.....	Books.....	4793		6 00
Mar. 5	James D. Cockcroft.....	Books.....	4794		6 00
Mar. 5	C. D. Cazenove.....	Books.....	4795		5 35
Mar. 5	Sac'to Home Directory Co.....	Books.....	4796		4 00
Mar. 5	John Byrne & Co.....	Books.....	4797		3 00
Mar. 5	L. R. Dempster.....	Subscription.....	4798		10 00
Mar. 5	Review Publishing Co.....	Subscription.....	4799		5 00
Mar. 5	American Forestry Ass'n.....	Subscription.....	4800		1 00
Mar. 5	S. M. Breen.....	Salary.....	4801		100 00
Mar. 5	Eudora Garoutte.....	Salary.....	4802		100 00
Mar. 5	Edith E. Cowden.....	Salary.....	4803		100 00
Mar. 5	Clara Lemmon.....	Salary.....	4804		100 00
Mar. 5	A. L. Blanchard.....	Salary.....	4805		100 00
Mar. 5	Agnese Barrett.....	Salary.....	4806		100 00
Mar. 5	S. A. Hutchinson.....	Salary.....	4807		100 00
Mar. 5	Frank J. O'Brien.....	Salary.....	4808		75 00
Mar. 5	Daisy I. Ennis.....	Salary.....	4809		75 00
Mar. 5	J. W. Gorman.....	Salary.....	4810		30 00
Mar. 5	Charles Walsh.....	Services.....	4811		75 00
Mar. 5	A. Meister & Sons.....	Repairs.....	4812		13 00
Mar. 5	Sunset Tel. & Tel. Co.....	Service.....	4813		10 00
Mar. 5	California State Bank.....	Check book.....	4814		6 75
Mar. 5	Capital Tel. & Tel. Co.....	Service.....	4815		4 50
Mar. 5	C. H. Krebs.....	Repairs.....	4816		3 50
Mar. 5	Western Union Tel. Co.....	Clock rental.....	4817		3 00
Mar. 5	Mrs. C. Mackall.....	Washing towels.....	4818		3 00
Mar. 5	J. W. Babcock.....	Repairing clock.....	4819		2 50
Mar. 5	Cap. and Sac. Transfer Co.....	Cartage.....	4820		2 00
Mar. 5	Wells, Fargo & Co.....	Expressage.....	4821		1 70
Mar. 5	H. S. Crocker Co.....	Letter book.....	4822		1 65
Mar. 5	J. L. Gillis.....	Expenses.....	4823		92 00
April 2	W. F. Purnell.....	Books.....	4824		242 19
April 2	Old Corner Book Store.....	Books.....	4825		105 30
April 2	H. S. Phillips.....	Books.....	4826		70 00
April 2	Bancroft-Whitney Co.....	Books.....	4827		51 85
April 2	West Publishing Co.....	Books.....	4828		48 75
April 2	Whitaker & Ray.....	Books.....	4829		38 54
April 2	P. S. King & Son.....	Books.....	4830		24 54
April 2	W. W. Hoag Co.....	Books.....	4831		24 00
April 2	John J. Newbegin.....	Books.....	4832		20 00
April 2	News Publishing Co.....	Books.....	4833		5 00
	Amounts carried forward.....			\$51,098 47	\$20,500 95

CREDITS FOR THE FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS—Continued.

Date.	To Whom Paid.	Item.	V'chr	Amount Dr.	Amount Cr.
1901	Amounts brought forward			\$51,098 47	\$20,500 95
April 2	Congdon & Britnell	Books	4834		4 25
April 2	Payot, Upham & Co.	Books	4835		4 00
April 2	C. A. Webb	Books	4836		3 00
April 2	W. B. Walkup	Maps	4837		10 00
April 2	Astronomical Soc. Pacific	Subscription	4838		10 00
April 2	"Chronicle"	Subscription	4839		4 40
April 2	Catholic World	Subscription	4840		3 00
April 2	S. M. Breen	Salary	4841		100 00
April 2	Eudora Garoutte	Salary	4842		100 00
April 2	Edith E. Cowden	Salary	4843		100 00
April 2	Clara Lemmon	Salary	4844		100 00
April 2	A. L. Blanchard	Salary	4845		100 00
April 2	S. A. Hutchinson	Salary	4846		100 00
April 2	Agnese Barrett	Salary	4847		100 00
April 2	F. J. O'Brien	Salary	4848		75 00
April 2	Daisy I. Ennis	Salary	4849		75 00
April 2	J. W. Gorman	Salary	4850		30 00
April 2	Charles Walsh	Services	4851		38 70
April 2	Tom Scott	Lights	4852		17 60
April 2	W. J. Weisman	Moving and repairs	4853		10 20
April 2	Sunset Tel. & Tel. Co.	Service	4854		10 00
April 2	Capital Tel. & Tel. Co.	Service	4855		4 50
April 2	J. O. Coleman, P. M.	Box rent	4856		3 50
April 2	Mrs. C. Mackall	Washing towels	4857		3 00
April 2	Wells, Fargo & Co.	Expressage	4858		2 35
April 2	W. P. Fuller	Shellac	4859		1 65
April 2	J. L. Gillis	Expenses	4860		50 00
May 4	W. F. Purnell	Books	4861		232 48
May 4	J. N. Odell	Books	4862		120 00
May 4	James Hamilton	Books	4863		65 00
May 4	D. Johnston & Co.	Books	4864		58 25
May 4	Payot, Upham & Co.	Books	4865		52 05
May 4	Whitaker & Ray	Books	4866		41 13
May 4	B. F. Stevens & Brown	Books	4867		17 13
May 4	Joel Munsell's Sons	Books	4868		16 70
May 4	C. D. Cazenove	Books	4869		5 35
May 4	Lawyers' Co-op. Pub. Co.	Books	4870		2 85
May 4	The Carswell Co.	Books	4871		1 60
May 4	H. H. Hart	Books	4872		1 25
May 4	Bancroft-Whitney Co.	Subscription	4873		4 50
May 4	"Call"	Subscription	4874		3 90
May 4	Southern Hist. Assoc.	Subscription	4875		3 00
May 4	Harvard Law Review	Subscription	4876		2 50
May 4	"Bulletin"	Subscription	4877		2 00
May 4	"California Fruit-Grower"	Subscription	4878		2 00
May 4	Elder & Shepard	Subscription	4879		1 50
May 4	S. M. Breen	Salary	4880		100 00
May 4	Eudora Garoutte	Salary	4881		100 00
May 4	Edith E. Cowden	Salary	4882		100 00
May 4	Clara Lemmon	Salary	4883		100 00
May 4	S. A. Hutchinson	Salary	4884		100 00
May 4	A. L. Blanchard	Salary	4885		100 00
May 4	Agnese Barrett	Salary	4886		100 00
May 4	Daisy I. Ennis	Salary	4887		100 00
May 4	F. J. O'Brien	Salary	4888		25 00
May 4	J. W. Gorman	Salary	4889		30 00
May 4	W. J. Weisman	Book repairs	4890		35 10
May 4	Sunset Tel. & Tel. Co.	Service	4891		10 00
May 4	Cap. and Sac. Transfer Co.	Cartage	4892		5 50
May 4	Capital Tel. & Tel. Co.	Service	4893		4 50
May 4	Wells, Fargo & Co.	Express charges	4894		4 30
May 4	Western Union Tel. Co.	Clock rental, etc.	4895		4 17
May 4	Mrs. C. Mackall	Washing towels	4896		3 00
May 4	Hicks-Judd Co.	Supplies	4897		2 13
May 4	J. A. Green	Alcohol, etc.	4898		2 05
May 4	John Breuner	Repairs	4899		1 50
May 4	Thomas Fraser	Notary's fees	4900		1 00
May 4	J. L. Gillis	Expenses	4901		50 00
	Amounts carried forward			\$51,098 47	\$23,172 54

CREDITS FOR THE FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS—Continued.

Date.	To Whom Paid.	Item.	V'chr	Amount Dr.	Amount Cr.
1901	Amounts brought forward			\$51,098 47	\$23,172 54
June 6	H. H. Moore	Books	4902		207 75
June 6	H. P. Gibson	Books	4903		127 00
June 6	D. Johnston & Co.	Books	4904		107 70
June 6	Bancroft-Whitney Co.	Books	4905		93 20
June 6	W. F. Purnell	Books	4906		48 89
June 6	John J. Newbegin	Books	4907		40 00
June 6	Boston Book Co.	Books	4908		21 37
June 6	Payot, Upham & Co.	Books	4909		20 50
June 6	Charles E. Lauriet Co.	Books	4910		17 50
June 6	George F. Cram	Books	4911		15 00
June 6	W. W. Hoag Co.	Books	4912		12 00
June 6	Kelly & Co.	Books	4913		10 00
June 6	Ballard Publishing Co.	Books	4914		6 50
June 6	Edward Thompson Co.	Books	4915		6 00
June 6	C. D. Cazenove	Books	4916		5 40
June 6	Joseph Wright	Books	4917		5 21
June 6	B. F. Stevens & Brown	Books	4918		5 07
June 6	Lawyers' Co-op. Pub. Co.	Books	4919		5 00
June 6	Burrows Bros.	Books	4920		4 62
June 6	A. Cotgreave	Books	4921		3 10
June 6	Pacific Coast Ad. Co.	Books	4922		3 00
June 6	"Record-Union"	Subscription	4923		7 80
June 6	H. W. Wilson	Subscription	4924		3 00
June 6	S. M. Breen	Salary	4925		100 00
June 6	Eudora Garoutte	Salary	4926		100 00
June 6	Edith E. Cowden	Salary	4927		100 00
June 6	Clara Lemmon	Salary	4928		100 00
June 6	A. L. Blanchard	Salary	4929		100 00
June 6	S. A. Hutchinson	Salary	4930		100 00
June 6	Agnese Barrett	Salary	4931		100 00
June 6	Daisy I. Ennis	Salary	4932		100 00
June 6	J. W. Gorman	Salary	4933		30 00
June 6	Dept. State Printing	Binding	4934		108 00
June 6	W. J. Weisman	Repairing books	4935		32 40
June 6	Sunset Tel. & Tel. Co.	Service	4936		11 50
June 6	Cap. and Sac. Transfer Co.	Cartage	4937		.535
June 6	Capital Tel. & Tel. Co.	Service	4938		4 50
June 6	Mrs. C. Mackall	Washing towels	4939		3 00
June 6	Wells, Fargo & Co.	Express charges	4940		2 50
June 6	J. L. Gillis	Expenses	4941		85 25
July 6	J. N. Odell	Books	4942		80 00
July 6	D. Johnston & Co.	Books	4943		71 00
July 6	W. F. Purnell	Books	4944		65 32
July 6	West Publishing Co.	Books	4945		57 75
July 6	John J. Newbegin	Books	4946		50 00
July 6	Knight & Brown	Books	4947		47 00
July 6	Whitaker & Ray Co.	Books	4948		44 88
July 6	Bancroft-Whitney Co.	Books	4949		43 75
July 6	H. S. Phillips	Books	4950		39 50
July 6	University Society	Books	4951		34 48
July 6	Payot, Upham & Co.	Books	4952		26 37
July 6	Rosomond Rodkinson	Books	4953		25 00
July 6	Boston Book Co.	Books	4954		6 00
July 6	American Law Book Co.	Books	4955		6 00
July 6	J. F. Slater	Books	4956		4 75
July 6	B. F. Stevens & Brown	Books	4957		3 97
July 6	Mrs. R. E. Graves	Books	4958		2 75
July 6	Mining Reporter	Books	4959		2 40
July 6	Carswell Co.	Books	4960		10 00
July 6	"Examiner"	Subscription	4961		7 80
July 6	"Mercury," San José	Subscription	4962		6 00
July 6	"Chronicle"	Subscription	4963		3 90
July 6	Funk & Wagnalls	Subscription	4964		3 00
July 6	Dept. State Printing	Print'g and bind'g	4965		278 00
July 6	S. M. Breen	Salary	4966		100 00
July 6	Eudora Garoutte	Salary	4967		100 00
July 6	Edith E. Cowden	Salary	4968		100 00
	Amounts carried forward			\$51,098 47	\$26,254 27

CREDITS FOR THE FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS—Continued.

Date.	To Whom Paid.	Item.	V'chr	Amount Dr.	Amount Cr.
1901	Amounts brought forward.			\$51,098 47	\$26,254 27
July 6	Clara Lemmon.	Salary	4969		100 00
July 6	A. L. Blanchard	Salary	4970		100 00
July 6	S. A. Hutchinson	Salary	4971		100 00
July 6	Agnese Barrett.	Salary	4972		100 00
July 6	Daisy Ennis	Salary	4973		100 00
July 6	Joseph D. Layman	Salary	4974		100 00
July 6	W. J. Gorman	Salary	4975		30 00
July 6	Hook & Son.	Repairs	4976		10 00
July 6	Sunset Tel. & Tel. Co	Service	4977		10 00
July 6	W. J. Weisman	Repairs on books	4978		7 20
July 6	Capital Tel. & Tel. Co.	Service	4979		4 50
July 6	Kane & Trainor	Ice	4980		4 20
July 6	Wells, Fargo & Co.	Expressage	4981		3 99
July 6	J. O. Coleman, P. M.	Box rent.	4982		3 50
July 6	Western Union Tel. Co.	Service	4983		3 05
July 6	Mrs. C. Mackall	Washing towels	4984		3 00
July 6	F. R. Pulford	Repairs	4985		1 30
July 6	J. L. Gillis	Expenses	4986		52 35
Aug. 1	W. F. Purnell	Books	4987		245 51
Aug. 1	Berlin Photograph Co.	Books	4988		240 00
Aug. 1	Whitaker & Ray Co.	Books	4989		39 32
Aug. 1	Bancroft-Whitney Co.	Books	4990		26 35
Aug. 1	B. F. Stevens & Brown	Books	4991		24 67
Aug. 1	D. Johnston & Co.	Books	4992		11 00
Aug. 1	Boston Book Co.	Books	4993		10 00
Aug. 1	John G. James	Books	4994		10 00
Aug. 1	J. N. Odell	Books	4995		10 00
Aug. 1	Edward Thompson Co.	Books	4996		6 00
Aug. 1	C. D. Cazenove.	Books	4997		5 40
Aug. 1	P. S. King & Co.	Books	4998		4 44
Aug. 1	James H. King	Books	4999		4 00
Aug. 1	Dodd, Mead & Co.	Books	5000		3 00
Aug. 1	Lawyers' Co-op. Pub. Co.	Books	5001		2 85
Aug. 1	Knight & Brown	Books	5002		2 00
Aug. 1	University of Pacific	Books	5003		1 00
Aug. 1	Pacific Sub. Agency	Periodicals	5004		188 35
Aug. 1	Democrat Publishing Co.	Subscription	5005		5 00
Aug. 1	S. M. Breen	Salary	5006		100 00
Aug. 1	Eudora Garoutte	Salary	5007		100 00
Aug. 1	Edith E. Cowden	Salary	5008		100 00
Aug. 1	Clara Lemmon	Salary	5009		100 00
Aug. 1	A. L. Blanchard	Salary	5010		100 00
Aug. 1	S. A. Hutchinson	Salary	5011		100 00
Aug. 1	Agnese Barrett.	Salary	5012		100 00
Aug. 1	Daisy Ennis	Salary	5013		100 00
Aug. 1	J. W. Gorman	Salary	5014		30 00
Aug. 1	Dept. State Printing	Print'g and bind'g.	5015		204 00
Aug. 1	Sunset Tel. & Tel. Co.	Service	5016		14 35
Aug. 1	Cap. and Sac. Transfer Co.	Service	5017		10 00
Aug. 1	Hook & Son	Repairs	5018		7 50
Aug. 1	Capital Tel. & Tel. Co.	Service	5019		4 50
Aug. 1	George B. Stack	Repairs	5020		3 60
Aug. 1	Mrs. C. Mackall	Washing towels	5021		3 00
Aug. 1	W. P. Fuller	Supplies	5022		1 06
Aug. 1	J. L. Gillis	Expenses	5023		96 00
Sept. 7	W. F. Purnell	Books	5024		283 59
Sept. 7	Boston Book Co.	Books	5025		5 75
Sept. 7	Bancroft-Whitney Co.	Books	5026		5 15
Sept. 7	Lawyers' Co-op. Pub. Co.	Books	5027		5 00
Sept. 7	Funk & Wagnalls	Books	5028		5 00
Sept. 7	Whitaker & Ray Co.	Books	5029		4 50
Sept. 7	Payot, Upham & Co.	Books	5030		24 76
Sept. 7	C. D. Cazenove.	Books	5031		5 40
Sept. 7	R. A. Thompson	Books	5032		18 00
Sept. 7	Knight & Brown	Books	5033		2 00
Sept. 7	Frank Shepard	Books	5034		65 00
Sept. 7	D. Johnston & Co.	Books	5035		21 25
	Amounts carried forward.			\$51,098 47	\$29,445 66

CREDITS FOR THE FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS—Continued.

Date.	To Whom Paid.	Item.	V'chr	Amount Dr.	Amount Cr.
1901	Amounts brought forward.			\$51,098 47	\$29,445 66
Sept. 7	Charles W. Palm	Books	5036		5 00
Sept. 7	Forest and Stream Pub. Co.	Subscription	5037		4 00
Sept. 7	Manila "Times"	Subscription	5038		10 00
Sept. 7	"Bulletin"	Subscription	5039		2 00
Sept. 7	"Call"	Subscription	5040		3 90
Sept. 7	"Daily Palo Alto"	Subscription	5041		3 00
Sept. 7	U. C. Magazine	Subscription	5042		1 50
Sept. 7	Dept. State Printing	Print'g and bind'g.	5043		84 75
Sept. 7	S. M. Breen	Salary	5044		100 00
Sept. 7	Edith E. Cowden	Salary	5045		100 00
Sept. 7	Clara Lemmon	Salary	5046		100 00
Sept. 7	Agnese Barrett	Salary	5047		100 00
Sept. 7	Eudora Garoutte	Salary	5048		100 00
Sept. 7	A. L. Blanchard	Salary	5049		100 00
Sept. 7	S. A. Hutchinson	Salary	5050		100 00
Sept. 7	Daisy Ennis	Salary	5051		100 00
Sept. 7	J. W. Gorman	Salary	5052		40 00
Sept. 7	W. J. Weisman	Cleaning, etc.	5053		69 00
Sept. 7	Frank Whitmore	Cleaning, etc.	5054		27 00
Sept. 7	C. K. Wood	Cleaning, etc.	5055		39 00
Sept. 7	Frank Ryan, Jr.	Cleaning, etc.	5056		33 00
Sept. 7	R. Woolf	Cleaning, etc.	5057		42 00
Sept. 7	Sacramento Pub. Co.	Advertising	5058		9 00
Sept. 7	George B. Stack	Cleaning & repairs	5059		153 44
Sept. 7	Hevener & Mier	Gilding dome	5060		75 00
Sept. 7	Tom Scott	Repairs	5061		17 95
Sept. 7	Wm. Carragher	Lettering	5062		10 00
Sept. 7	D. Johnston & Co.	Repair'g typewriter	5063		5 00
Sept. 7	Wyckoff-Benedict Co.	Repair'g typewriter	5064		10 85
Sept. 7	W. R. Pulford	Locks and keys	5065		12 40
Sept. 7	W. P. Fuller & Co.	Shellac	5066		1 40
Sept. 7	Wells, Fargo & Co.	Expressage	5067		10 31
Sept. 7	Sunset Tel. & Tel. Co.	Service	5068		10 50
Sept. 7	Cap. and Sac. Transfer Co.	Service	5069		3 50
Sept. 7	Mrs. C. Mackall	Washing towels	5070		3 00
Sept. 7	J. L. Gillis	Expenses	5071		50 00
Oct. 12	W. F. Purnell	Books	5072		25 82
Oct. 12	Boston Book Co.	Books	5073		79 27
Oct. 12	Bancroft-Whitney Co.	Books	5074		23 60
Oct. 12	Whitaker & Ray Co.	Books	5075		2 65
Oct. 12	Lawyers' Co-op. Pub. Co.	Books	5076		2 85
Oct. 12	Payot, Upham & Co.	Books	5077		17 55
Oct. 12	West Publishing Co.	Books	5078		62 25
Oct. 12	W. W. Hoag Co.	Books	5079		12 00
Oct. 12	John J. Newbegin	Books	5080		30 00
Oct. 12	Old Corner Book Store	Books	5081		73 15
Oct. 12	D. Johnston & Co.	Books	5082		29 75
Oct. 12	H. P. McKusick	Books	5083		32 75
Oct. 12	Charles L. Taylor	Books	5084		1 25
Oct. 12	New Talmud Pub. Co.	Books	5085		5 00
Oct. 12	A. M. Robertson	Books	5086		1 20
Oct. 12	E. R. DuMont	Books	5087		210 00
Oct. 12	Pacific Newspaper Union	Subscription	5088		5 00
Oct. 12	"Daily Morning Union"	Subscription	5089		6 00
Oct. 12	"Chronicle"	Subscription	5090		3 90
Oct. 12	S. M. Breen	Salary	5091		100 00
Oct. 12	Eudora Garoutte	Salary	5092		100 00
Oct. 12	Edith E. Cowden	Salary	5093		100 00
Oct. 12	Clara Lemmon	Salary	5094		100 00
Oct. 12	Agnese Barrett	Salary	5095		100 00
Oct. 12	Daisy Ennis	Salary	5096		100 00
Oct. 12	S. A. Hutchinson	Salary	5097		100 00
Oct. 12	A. L. Blanchard	Salary	5098		100 00
Oct. 12	J. W. Gorman	Salary	5099		40 00
Oct. 12	Dept. State Printing	Binding	6000		16 75
Oct. 12	Siller Bros.	Improvements	6001		404 00
Oct. 12	Locke & Lavenson	Carpets, etc.	6002		565 53
	Amounts carried forward.			\$51,098 47	\$33,432 43

CREDITS FOR THE FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS—Continued.

Date.	To Whom Paid.	Item.	V'chr	Amount Dr.	Amount Cr.
1901	Amounts brought forward.			\$51,098 47	\$33,432 43
Oct. 12	Charles A. Palm	Railing	6003		81 00
Oct. 12	A. Mendis	Cleaning carpets	6004		13 17
Oct. 12	J. O. Coleman, P. M.	Box rent	6005		3 50
Oct. 12	Capital Tel. & Tel. Co.	Service	6006		9 00
Oct. 12	Sunset Tel. & Tel. Co.	Service	6007		10 00
Oct. 12	Wells, Fargo & Co.	Expressage	6008		10 55
Oct. 12	Western Union Tel. Co.	Service, etc.	6009		4 38
Oct. 12	Mrs. C. Mackall	Washing towels	6010		3 00
Oct. 12	J. L. Gillis	Expenses	6011		51 60
Nov. 2	E. R. DuMont	Books	6012		210 00
Nov. 2	W. F. Purnell	Books	6013		187 91
Nov. 2	Whitaker & Ray Co.	Books	6014		83 58
Nov. 2	Boston Book Co.	Books	6015		28 52
Nov. 2	Payot, Upham & Co.	Books	6016		24 18
Nov. 2	Bancroft-Whitney Co.	Books	6017		27 13
Nov. 2	Hicks-Judd Co.	Books	6018		20 00
Nov. 2	John J. Newbegin	Books	6019		20 00
Nov. 2	H. P. McKusick	Books	6020		7 00
Nov. 2	James D. Cockcroft	Books	6021		6 00
Nov. 2	Edward Thompson Co.	Books	6022		6 00
Nov. 2	Congdon & Britnell	Books	6023		4 25
Nov. 2	C. D. Cazenove	Books	6025		5 37
Nov. 2	B. F. Stevens & Brown	Books	6024		5 82
Nov. 2	Lawyers' Co-op. Pub. Co.	Books	6026		5 00
Nov. 2	R. L. Brooke	Books	6027		4 00
Nov. 2	Louis P. McCarty	Books	6028		3 50
Nov. 2	James McGrath	Books	6029		1 50
Nov. 2	Elder & Shepard	Books	6030		1 00
Nov. 2	Geolog'1 Soc. of the Pacific	Subscription	6031		5 00
Nov. 2	Engineering Record	Subscription	6032		5 00
Nov. 2	Times-Mirror Co.	Subscription	6033		4 50
Nov. 2	Catholic World Magazine	Subscription	6034		3 00
Nov. 2	American Historical Ass'n	Subscription	6035		3 00
Nov. 2	S. M. Breen	Salary	6036		100 00
Nov. 2	Eudora Garoutte	Salary	6037		100 00
Nov. 2	Edith E. Cowden	Salary	6038		100 00
Nov. 2	Clara Lemmon	Salary	6039		100 00
Nov. 2	Agnese Barrett	Salary	6040		100 00
Nov. 2	S. A. Hutchinson	Salary	6041		100 00
Nov. 2	A. L. Blanchard	Salary	6042		100 00
Nov. 2	Daisy Ennis	Salary	6043		100 00
Nov. 2	J. W. Gorman	Salary	6044		40 00
Nov. 2	Dept. State Printing	Print'g and bind'g	6045		619 75
Nov. 2	Locke & Lavenson	Carpets, etc.	6046		433 40
Nov. 2	Harry W. Rivett	Cleaning carpets	6047		110 50
Nov. 2	Sunset Tel. & Tel. Co.	Service	6048		10 50
Nov. 2	Capital Tel. & Tel. Co.	Service	6049		4 50
Nov. 2	Cap. and Sac. Transfer Co.	Cartage	6050		5 25
Nov. 2	Henry E. Sleeper	Rubber stamps	6051		1 50
Nov. 2	J. A. Green	Alcohol, etc.	6052		2 05
Nov. 2	Mrs. C. Mackall	Washing towels	6053		3 00
Nov. 2	J. L. Gillis	Expenses	6054		46 00
Dec. 7	H. H. Moore	Books	6055		226 25
Dec. 7	Bancroft-Whitney Co.	Books	6056		86 15
Dec. 7	D. Johnston & Co.	Books	6057		62 00
Dec. 7	W. F. Purnell	Books	6058		56 95
Dec. 7	A. M. Robertson	Books	6059		40 00
Dec. 7	Payot, Upham & Co.	Books	6060		38 59
Dec. 7	Boston Book Co.	Books	6061		21 25
Dec. 7	Fred. P. Kaiser	Books	6062		10 00
Dec. 7	B. F. Stevens & Brown	Books	6063		7 03
Dec. 7	American Law Book Co.	Books	6064		6 00
Dec. 7	C. D. Cazenove	Books	6065		5 35
Dec. 7	Library Bureau	Books	6066		5 00
Dec. 7	John Byrne & Co.	Books	6067		3 00
Dec. 7	Knight & Brown	Books	6068		2 00
Dec. 7	"Record-Union"	Subscription	6069		7 80
	Amounts carried forward.			\$51,098 47	\$36,943 71

CREDITS FOR THE FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS—Continued.

Date.	To Whom Paid.	Item.	V'chr	Amount Dr.	Amount Cr.
1901	Amounts brought forward			\$51,098 47	\$36,943 71
Dec. 7	"Bee"	Subscription	6070		6 60
Dec. 7	"Evening Post"	Subscription	6071		4 50
Dec. 7	"Call"	Subscription	6072		3 90
Dec. 7	Mining and Scientific Press	Subscription	6073		3 00
Dec. 7	S. M. Breen	Salary	6074		100 00
Dec. 7	Agnese Barrett	Salary	6075		100 00
Dec. 7	A. L. Blanchard	Salary	6076		100 00
Dec. 7	Edith E. Cowden	Salary	6077		100 00
Dec. 7	Daisy Ennis	Salary	6078		100 00
Dec. 7	Eudora Garoutte	Salary	6079		100 00
Dec. 7	S. A. Hutchinson	Salary	6080		100 00
Dec. 7	Clara Lemmon	Salary	6081		100 00
Dec. 7	J. W. Gorman	Salary	6082		40 00
Dec. 7	Pacific Sub. Agency	Subscription	6083		12 37
Dec. 7	Sunset Tel. & Tel. Co.	Service	6084		12 20
Dec. 7	Capital Tel. & Tel. Co.	Service	6085		4 50
Dec. 7	Dept. State Printing	Printing	6086		9 75
Dec. 7	Cap. and Sac. Transfer Co.	Cartage	6087		3 50
Dec. 7	Western Union Tel. Co.	Service	6088		2 26
Dec. 7	Wells, Fargo & Co.	Expressage	6089		4 90
Dec. 7	Tom Scott	Repairs	6090		2 50
Dec. 7	Henry E. Sleeper	Repairs	6091		1 50
Dec. 7	B. Wilson & Co.	Towels	6092		5 50
Dec. 7	Mrs. C. Mackall	Washing towels	6093		3 00
Dec. 7	J. L. Gillis	Expenses	6094		92 00
1902					
Jan. 4	D. Johnston & Co.	Books	6095		143 50
Jan. 4	W. F. Purnell	Books	6096		101 73
Jan. 4	Boston Book Co.	Books	6097		74 91
Jan. 4	Whitaker & Ray Co.	Books	6098		36 71
Jan. 4	Burrows Bros.	Books	6099		27 28
Jan. 4	Charles E. Lauriat	Books	6100		23 04
Jan. 4	John J. Newbegin	Books	6101		20 00
Jan. 4	Bancroft-Whitney Co.	Books	6102		19 25
Jan. 4	W. W. Hoag Co.	Books	6103		16 00
Jan. 4	Lawyers' Co-op. Pub. Co.	Books	6104		10 70
Jan. 4	John Skinner	Books	6105		10 54
Jan. 4	A. M. Robertson	Books	6106		9 00
Jan. 4	Elder & Shepard	Books	6107		6 97
Jan. 4	M. L. D. Libby	Books	6108		6 50
Jan. 4	Hubbell Pub. Co.	Books	6109		5 35
Jan. 4	Supreme Council	Books	6110		5 00
Jan. 4	Council Co. Borough	Books	6111		3 05
Jan. 4	Congdon & Britnell	Books	6112		3 00
Jan. 4	Knight & Brown	Books	6113		2 00
Jan. 4	Wm. Abbatt	Books	6114		2 00
Jan. 4	"Examiner"	Subscription	6115		7 80
Jan. 4	Lyon G. Tyler	Subscription	6116		3 00
Jan. 4	"Overland Monthly"	Subscription	6117		2 00
Jan. 4	"Bulletin"	Subscription	6118		2 00
Jan. 4	"Hanford Sentinel"	Subscription	6119		2 00
Jan. 4	S. M. Breen	Salary	6120		100 00
Jan. 4	Agnese Barrett	Salary	6121		100 00
Jan. 4	A. L. Blanchard	Salary	6122		100 00
Jan. 4	Edith E. Cowden	Salary	6123		100 00
Jan. 4	Daisy Ennis	Salary	6124		100 00
Jan. 4	Eudora Garoutte	Salary	6125		100 00
Jan. 4	S. A. Hutchinson	Salary	6126		100 00
Jan. 4	Clara Lemmon	Salary	6127		100 00
Jan. 4	J. W. Gorman	Salary	6128		40 00
Jan. 4	Dept. State Printing	Print'g and bind'g	6129		55 75
Jan. 4	R. E. Revalk & Co.	Repairing typewrit'r	6130		15 00
Jan. 4	Kane & Trainor	Ice, six months	6131		13 60
Jan. 4	Sunset Tel. & Tel. Co.	Service	6132		10 25
Jan. 4	Capital Tel. & Tel. Co.	Service	6133		4 50
Jan. 4	Western Union Tel. Co.	Clock rental	6134		3 00
	Amounts carried forward			\$51,098 47	\$39,441 12

CREDITS FOR THE FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS—Continued.

Date.	To Whom Paid.	Item.	V'chr	Amount Dr.	Amount Cr.
1902	Amounts brought forward.			\$51,098 47	\$39,441 12
Jan. 4	Cap. and Sac. Transfer Co.	Cartage	6135		4 00
Jan. 4	Frank M. Jones	Rent typewriter	6136		3 50
Jan. 4	J. O. Coleman, P. M.	Box rent	6137		3 50
Jan. 4	Whisky Hill Water Co.	Water	6138		7 85
Jan. 4	Payot, Upham & Co.	Supplies	6139		1 25
Jan. 4	W. P. Fuller & Co.	Supplies	6140		1 25
Jan. 4	Mrs. C. Mackall	Washing towels	6141		3 00
Jan. 4	J. L. Gillis	Expenses	6142		106 00
Feb. 1	Whitaker & Ray Co.	Books	6143		180 77
Feb. 1	Edward D. Benson	Books	6144		70 00
Feb. 1	West Publishing Co.	Books	6145		67 50
Feb. 1	Payot, Upham & Co.	Books	6146		55 68
Feb. 1	Bancroft-Whitney Co.	Books	6147		50 75
Feb. 1	Boston Book Co.	Books	6148		38 00
Feb. 1	George W. Ficks	Books	6149		37 50
Feb. 1	A. M. Robertson	Books	6150		49 00
Feb. 1	Elder & Shepard	Books	6151		16 32
Feb. 1	Matthew Bender	Books	6152		10 00
Feb. 1	Charles Scribner's Sons	Books	6153		8 00
Feb. 1	Burrows Bros.	Books	6154		7 00
Feb. 1	W. F. Purnell	Books	6155		5 85
Feb. 1	C. D. Cazenove & Son	Books	6156		5 39
Feb. 1	John Byrne & Co.	Books	6157		3 00
Feb. 1	New Talmud Pub. Co.	Books	6158		2 50
Feb. 1	Lawyers' Co-op. Pub. Co.	Books	6159		2 00
Feb. 1	Nation'l Education'l Ass'n.	Books	6160		2 00
Feb. 1	D. Johnston & Co.	Books	6161		1 40
Feb. 1	National Conference C. & C.	Books	6162		1 25
Feb. 1	Pacific Sub. Agency	Subscription, 1902	6163		359 75
Feb. 1	Recorder Publishing Co.	Subscription	6164		12 00
Feb. 1	Democrat Pub. House	Subscription	6165		10 00
Feb. 1	Astronomical Soc. Pacific	Subscription	6166		5 00
Feb. 1	Southern Hist. Assoc.	Subscription	6167		3 00
Feb. 1	Physician' Pub. Co.	Subscription	6168		2 50
Feb. 1	Library Bureau	Subscription	6169		1 00
Feb. 1	A. L. Blanchard	Salary	6170		100 00
Feb. 1	Agnese Barrett	Salary	6171		100 00
Feb. 1	S. M. Breen	Salary	6172		100 00
Feb. 1	Edith E. Cowden	Salary	6173		100 00
Feb. 1	Daisy Ennis	Salary	6174		100 00
Feb. 1	Endora Garoutte	Salary	6175		100 00
Feb. 1	S. A. Hutchinson	Salary	6176		100 00
Feb. 1	Clara Lemmon	Salary	6177		100 00
Feb. 1	J. W. Gorman	Salary	6178		40 00
Feb. 1	Hevener, Mier & Co.	Pictures	6179		143 50
Feb. 1	Sunset Tel. & Tel. Co.	Service	6180		10 00
Feb. 1	Capital Tel. & Tel. Co.	Service	6181		4 50
Feb. 1	Cap. and Sac. Transfer Co.	Cartage	6182		3 75
Feb. 1	Wells, Fargo & Co.	Expressage	6183		3 65
Feb. 1	George B. Stack	Repairs	6184		5 35
Feb. 1	Mrs. C. Mackall	Washing towels	6185		3 00
Feb. 1	J. L. Gillis	Expenses	6186		91 00
Mar. 5	D. Johnston & Co.	Books	6187		101 50
Mar. 5	Boston Book Co.	Books	6188		79 36
Mar. 5	P. S. King & Son	Books	6189		49 65
Mar. 5	Payot, Upham & Co.	Books	6190		46 18
Mar. 5	Bancroft-Whitney Co.	Books	6191		38 40
Mar. 5	John J. Newbegin	Books	6192		20 00
Mar. 5	W. F. Purnell	Books	6193		11 00
Mar. 5	James T. White	Books	6194		10 00
Mar. 5	Lawyers' Co-op. Pub. Co.	Books	6195		7 85
Mar. 5	Remick-Shilling Co.	Books	6196		7 50
Mar. 5	Whitaker & Ray Co.	Books	6197		6 41
Mar. 5	Edward Thompson Co.	Books	6198		6 00
Mar. 5	C. D. Cazenove	Books	6199		5 39
Mar. 5	J. E. Mallmann	Books	6200		5 00
Mar. 5	Sac'to Home Direct. Co.	Books	6201		4 00
	Amounts carried forward.			\$51,098 47	\$42,081 62

CREDITS FOR THE FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS—Continued.

Date.	To Whom Paid.	Item.	V'chr	Amount Dr.	Amount Cr.
1902	Amounts brought forward.			\$51,098 47	\$42,081 62
Mar. 5	"Chronicle"	Subscription	6202		7 35
Mar. 5	"Call"	Subscription	6203		5 29
Mar. 5	Review Publishing Co.	Subscription	6204		5 00
Mar. 5	"Pacific Oil Reporter"	Subscription	6205		2 50
Mar. 5	S. M. Breen	Salary	6206		100 00
Mar. 5	Agnes Barrett	Salary	6207		100 00
Mar. 5	A. L. Blanchard	Salary	6208		100 00
Mar. 5	Edith E. Cowden	Salary	6209		100 00
Mar. 5	Daisy Ennis	Salary	6210		100 00
Mar. 5	Eudora Garoutte	Salary	6211		100 00
Mar. 5	S. A. Hutchinson	Salary	6212		100 00
Mar. 5	Clara Lemmon	Salary	6213		100 00
Mar. 5	J. W. Gorman	Salary	6214		40 00
Mar. 5	Dept. State Printing	Print'g and bind'g	6215		164 50
Mar. 5	Frank M. Jones	Typewriter	6216		60 75
Mar. 5	Sunset Tel. & Tel. Co.	Service	6217		10 70
Mar. 5	Capital Tel. & Tel. Co.	Service	6218		4 50
Mar. 5	Wells, Fargo & Co.	Expressage	6219		8 35
Mar. 5	Western Union Tel. Co.	Service	6220		3 25
Mar. 5	Mrs. C. A. Mackall	Washingtows	6221		3 00
Mar. 5	W. P. Fuller & Co.	Shellac	6222		1 40
Mar. 5	J. L. Gillis	Expenses	6223		40 61
April 3	H. H. Moore	Books	6224		218 50
April 3	Bancroft-Whitney Co.	Books	6225		54 25
April 3	Whitaker & Ray Co.	Books	6226		34 83
April 3	D. Johnston & Co.	Books	6227		31 85
April 3	Congdon & Britnell	Books	6228		30 00
April 3	John J. Newbegin	Books	6229		25 00
April 3	Burrows Bros.	Books	6230		12 50
April 3	Payot, Upham & Co.	Books	6231		12 00
April 3	B. F. Stevens & Brown	Books	6232		11 44
April 3	Joseph Wright	Books	6233		10 44
April 3	Benj. L. McCoy	Books	6234		10 00
April 3	W. W. Hoag Co.	Books	6235		8 00
April 3	L. R. Hamersly	Books	6236		7 00
April 3	Edw. Thompson Co.	Books	6237		6 00
April 3	C. D. Cazenove	Books	6238		5 35
April 3	A. M. Robertson	Books	6239		5 00
April 3	Johns Hopkins Press	Books	6240		3 00
April 3	Amer. Jersey Cattle Club	Books	6241		3 00
April 3	Elder & Shepard	Books	6242		2 95
April 3	U. S. Military Academy	Books	6243		2 50
April 3	Lea Bros. & Co.	Subscription	6244		9 00
April 3	N. Y. Geneal. & Biog. Soc.	Subscription	6245		4 10
April 3	Free Press Pub. Co.	Subscription	6246		4 00
April 3	National Geographic Assoc.	Subscription	6247		3 00
April 3	"California Fruit-Grower"	Subscription	6248		2 00
April 3	Amer. Stat. Assoc.	Subscription	6249		2 00
April 3	Agnes Barrett	Salary	6250		100 00
April 3	A. L. Blanchard	Salary	6251		100 00
April 3	S. M. Breen	Salary	6252		100 00
April 3	Edith E. Cowden	Salary	6253		100 00
April 3	Daisy Ennis	Salary	6254		100 00
April 3	Eudora Garoutte	Salary	6255		100 00
April 3	S. A. Hutchinson	Salary	6256		100 00
April 3	Clara Lemmon	Salary	6257		100 00
April 3	J. W. Gorman	Salary	6258		40 00
April 3	Dept. State Printing	Print'g and bind'g	6259		475 50
April 3	Geo. B. Stack	Repairs	6260		34 41
April 3	Sunset Tel. & Tel. Co.	Service	6261		10 25
April 3	Capital Tel. & Tel. Co.	Service	6262		4 50
April 3	Cap. and Sac. Transfer Co.	Cartage	6263		7 10
April 3	Western Union Tel. Co.	Service	6264		4 90
April 3	Wells, Fargo & Co.	Expressage	6265		2 50
April 3	Whisky Hill Water Co.	Well water	6266		6 75
April 3	W. J. Weisman	Labor	6267		3 00
April 3	Charles Wood	Labor	6268		7 50
	Amounts carried forward.			\$51,098 47	\$45,152 85

CREDITS FOR THE FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS—Continued.

Date.	To Whom Paid.	Item.	V'chr.	Amount Dr.	Amount Cr.
1902	Amounts brought forward.			\$51,098 47	\$45,152 85
April 3	J. O. Coleman, P. M.	Box rent	6269		3 50
April 3	F. R. Pulford	Locks and keys	6270		1 65
April 3	Mrs. C. Mackall	Washing towels	6271		3 00
April 3	J. L. Gillis	Expenses	6272		113 59
May 2	Bancroft-Whitney Co.	Books	6273		62 75
May 2	D. Johnston & Co.	Books	6274		68 19
May 2	West Publishing Co.	Books	6275		58 50
May 2	Boston Book Co.	Books	6276		48 14
May 2	W. F. Purnell	Books	6277		15 80
May 2	Royal Stat. Soc.	Books	6278		15 34
May 2	Chas. Scribner's Sons	Books	6279		8 00
May 2	W. W. Hoag Co.	Books	6280		8 00
May 2	Amer. Law Book Co.	Books	6281		6 00
May 2	Pacific Coast Press	Books	6282		6 00
May 2	C. D. Cazenove	Books	6283		5 35
May 2	Lawyers' Co-op. Pub. Co.	Books	6284		2 85
May 2	Insurance Law Journal	Subscription	6285		12 00
May 2	Harvard Law Review	Subscription	6286		3 10
May 2	Southern Hist. Society	Subscription	6287		3 00
May 2	Funk & Wagnalls	Subscription	6288		3 00
May 2	"Bulletin"	Subscription	6289		2 00
May 2	Agnes Barrett	Salary	6290		100 00
May 2	A. L. Blanchard	Salary	6291		100 00
May 2	S. M. Breen	Salary	6292		100 00
May 2	Edith E. Cowden	Salary	6293		100 00
May 2	Daisy Ennis	Salary	6294		100 00
May 2	Eudora Garoutte	Salary	6295		100 00
May 2	S. A. Hutchinson	Salary	6296		100 00
May 2	Clara Lemmon	Salary	6297		100 00
May 2	J. W. Gorman	Salary	6298		40 00
May 2	Dept. State Printing	Print'g and bind'g.	6299		488 75
May 2	Sunset Tel. & Tel. Co.	Service	6300		11 75
May 2	Capital Tel. & Tel. Co.	Service	6301		4 50
May 2	Mrs. C. Mackall	Washing towels	6302		3 00
May 2	J. L. Gillis	Expenses	6303		103 16
June 7	D. Johnston & Co.	Books	6304		199 43
June 7	Whitaker & Ray Co.	Books	6305		107 00
June 7	Payot, Upham & Co.	Books	6306		86 24
June 7	B. F. Stevens & Brown	Books	6307		33 58
June 7	Congdon & Britnell	Books	6308		23 00
June 7	G. E. Stechert	Books	6309		19 60
June 7	Pacific Art Co.	Books	6310		17 50
June 7	Boston Book Co.	Books	6311		9 79
June 7	P. Blakiston's Son & Co.	Books	6312		9 60
June 7	Edw. Thompson & Co.	Books	6313		6 00
June 7	James D. Cockcroft	Books	6314		6 00
June 7	Johns Hopkins Press	Books	6315		6 00
June 7	P. S. King & Son	Books	6316		4 45
June 7	W. F. Purnell	Books	6317		3 20
June 7	New Talmud Pub. Co.	Books	6318		2 50
June 7	A. M. Robertson	Books	6319		1 95
June 7	"Record-Union"	Subscription	6320		7 80
June 7	Dodd, Mead & Co.	Subscription	6321		5 00
June 7	"Call"	Subscription	6322		4 10
June 7	Globe Printing Co.	Subscription	6323		6 00
June 7	Inter-Ocean Newspaper Co.	Subscription	6324		4 00
June 7	"Chronicle"	Subscription	6325		3 90
June 7	H. W. Wilson	Subscription	6326		3 00
June 7	"Morning Press"	Subscription	6327		2 00
June 7	U. C. Magazine	Subscription	6328		1 50
June 7	Forestry and Irrigation	Subscription	6329		1 50
June 7	British-Cal. Pub. Co.	Subscription	6330		1 00
June 7	Agnes Barrett	Salary	6331		100 00
June 7	A. L. Blanchard	Salary	6332		100 00
June 7	S. M. Breen	Salary	6333		100 00
June 7	Edith E. Cowden	Salary	6334		100 00
June 7	Daisy Ennis	Salary	6335		100 00
	Amounts carried forward.			\$51,098 47	\$48,129 41

CREDITS FOR THE FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS—Continued.

Date.	To Whom Paid.	Item.	V'chr	Amount Dr.	Amount Cr.
1902	Amounts brought forward.			\$51,098 47	\$48,129 41
June 7	Eudora Garoutte	Salary	6336		100 00
June 7	S. A. Hutchinson	Salary	6337		100 00
June 7	Clara Lemmon	Salary	6338		100 00
June 7	W. J. Weisman	Salary (Janitor)	6339		20 00
June 7	J. W. Gorman	Salary	6340		40 00
June 7	Dept. State Printing	Printing	6341		53 50
June 7	Frank Mead	Repairs	6342		9 50
June 7	Cap. and Sac. Transfer Co.	Cartage	6343		7 25
June 7	Sunset Tel. & Tel. Co.	Service	6344		10 95
June 7	Capital Tel. & Tel. Co.	Service	6345		4 50
June 7	Wells, Fargo & Co.	Expressage	6346		6 65
June 7	Western Union Tel. Co.	Service	6347		1 61
June 7	Mrs. C. Mackall	Washing towels	6348		3 00
June 7	J. L. Gillis	Expenses	6349		143 25
June 30	Bancroft-Whitney & Co.	Books	6350		154 30
June 30	John J. Newbegin	Books	6351		129 60
June 30	Whitaker & Ray Co.	Books	6352		95 97
June 30	H. H. Moore	Books	6353		88 25
June 30	George D. Sproul	Books	6354		54 00
June 30	Wm. Wood & Co.	Books	6355		42 78
June 30	Keefe-Davidson Law Bk. Co.	Books	6356		36 55
June 30	James H. King	Books	6357		10 00
June 30	D. Johnston & Co.	Books	6358		8 50
June 30	Lawyers' Co-op. Pub. Co.	Books	6359		7 85
June 30	Remick, Shilling & Co.	Books	6360		7 50
June 30	H. S. Crocker Co.	Books	6361		5 00
June 30	Payot, Upham & Co.	Books	6362		3 88
June 30	Knight & Brown	Books	6363		2 00
June 30	Benzinger Bros.	Books	6364		1 35
June 30	University of Pacific	Books	6365		1 00
June 30	Mutual Sub. Agency	Sub. periodicals	6366		185 50
June 30	Picayune	Subscription	6367		12 00
June 30	N. Y. "Sun"	Subscription	6368		8 00
June 30	"Hawaiian Gazette"	Subscription	6369		5 00
June 30	Democrat Publishing Co.	Subscription	6370		5 00
June 30	"Catholic World"	Subscription	6371		3 00
June 30	Dept. State Printing	Printing	6372		22 00
June 30	Agnese Barrett	Salary	6373		100 00
June 30	A. L. Blanchard	Salary	6374		100 00
June 30	S. M. Breen	Salary	6375		100 00
June 30	Edith E. Cowden	Salary	6376		100 00
June 30	Daisy Ennis	Salary	6377		100 00
June 30	Eudora Garoutte	Salary	6378		100 00
June 30	S. A. Hutchinson	Salary	6379		100 00
June 30	Clara Lemmon	Salary	6380		100 00
June 30	James P. Moriarity	Services (12 da.)	6381		39 96
June 30	J. W. Gorman	Salary	6382		40 00
June 30	W. J. Weisman	Salary (Janitor)	6383		20 00
June 30	Sunset Tel. & Tel. Co.	Service	6384		12 90
June 30	Capital Tel. & Tel. Co.	Service	6385		4 50
June 30	Cap. and Sac. Transfer Co.	Cartage	6386		3 25
June 30	Hook & Son	Repairs	6387		22 69
June 30	Western Union Tel. Co.	Service	6388		2 10
June 30	Postal Tel. & Cable Co.	Service	6389		1 51
June 30	Whisky Hill Water Co.	Well water	6390		6 75
June 30	C. K. Wood	Service	6391		6 00
June 30	Mrs. C. Mackall	Washing towels	6392		3 00
June 30	J. L. Gillis	Expenses	6393		87 36
	Balance on hand				\$50,668 67
					429 80
				\$51,098 47	\$51,098 47

RECAPITULATION.

Debits for fifty-second fiscal year	\$25,435 45
Credits for fifty-second fiscal year	25,030 65
Balance	<u>\$404 80</u>
Debits for fifty-third fiscal year	\$25,663 02
Credits for fifty-third fiscal year	25,638 02
Balance	<u>\$25 00</u>
Total debits	\$51,098 47
Total credits	50,668 67
Balance, July 1, 1902	<u>\$429 80</u>

STATE OF CALIFORNIA, }
COUNTY OF SACRAMENTO. } ss.

I, J. L. Gillis, Secretary of the Board of Trustees of the California State Library, do solemnly swear that the foregoing is a true and correct statement of expenditures of the State Library for the fifty-second and fifty-third fiscal years, July 1, 1900, to July 1, 1902.

J. L. GILLIS.

Subscribed and sworn to before me, this 10th day of November, 1902.

[SEAL.]

FRANK J. O'BRIEN,
Notary Public.

CALIFORNIA NEWSPAPERS DONATED BY THE PUBLISHERS TO THE STATE LIBRARY.

County.	Paper.	Place of Publication.
Alameda	Oakland Tribune	Oakland
Alameda	Oakland Times	Oakland
Alameda	Oakland Enquirer	Oakland
Alameda	Californian	Berkeley
Amador	Amador Dispatch	Jackson
Amador	Amador Ledger	Amador
Butte	Chico Record	Chico
Calaveras	Calaveras Prospect	San Andreas
Calaveras	Calaveras Chronicle	Mokelumne Hill
Colusa	Colusa Sun	Colusa
Contra Costa	Contra Costa Gazette	Martinez
Contra Costa	Antioch Ledger	Antioch
Contra Costa	County Paper	Martinez
Del Norte	Del Norte Record	Crescent City
El Dorado	El Dorado Republican	Placerville
El Dorado	Placerville Nugget (Daily)	Placerville
El Dorado	Placerville Nugget (Weekly)	Placerville
Fresno	Fresno Republican	Fresno
Glenn	Willows Review	Willows
Humboldt	Humboldt Standard	Eureka
Inyo	Inyo Independent	Independence
Kern	Kern County Echo	Bakersfield
Lake	Lake County Bee	Lakeport
Lassen	Big Valley Gazette	Bieber
Los Angeles	Acton Rooster	Acton
Los Angeles	Pasadena News	Pasadena
Los Angeles	Record	Los Angeles
Marin	Marin Journal	San Rafael
Marin	Marin County Tocsin	San Rafael
Mariposa	Mariposa Gazette	Mariposa
Mendocino	Mendocino Beacon	Mendocino
Merced	Merced Express	Merced
Modoc	Alturas New Era	Alturas
Mono	Bridgeport Chronicle-Union	Bridgeport
Monterey	Salinas Journal	Salinas
Napa	St. Helena Star	St. Helena
Nevada	Tidings-Telegraph	Grass Valley
Nevada	Truckee Republican	Truckee
Orange	Anaheim Gazette	Anaheim
Orange	Santa Ana Standard	Santa Ana
Placer	Colfax Sentinel	Colfax
Placer	Newcastle News	Newcastle
Placer	Placer Herald	Auburn
Placer	Placer Leader	Auburn
Plumas	Plumas National Bulletin	Quincy
Riverside	Press and Horticulturist	Riverside
Sacramento	Folsom Telegraph	Folsom
Sacramento	Galt Gazette	Galt
Sacramento	Oak Park Journal	Oak Park
Sacramento	Oak Park Leader	Oak Park
San Benito	San Benito Advance	Hollister
San Bernardino	Redlands Citrograph	Redlands
San Diego	Escondido Times	Escondido
San Diego	Tribune	San Diego
San Diego	San Diegan Sun	San Diego
San Joaquin	Stockton Mail	Stockton
San Luis Obispo	Breeze	San Luis Obispo
San Luis Obispo	Tribune	San Luis Obispo
San Mateo	Redwood City Democrat	Redwood City
San Mateo	Times	San Mateo
Santa Clara	Palo Alto Times	Palo Alto
Santa Cruz	Santa Cruz Surf	Santa Cruz
Serra	Downieville Mountain Messenger	Downieville

CALIFORNIA NEWSPAPERS DONATED BY THE PUBLISHERS, ETC.--Continued.

County.	Paper.	Place of Publication.
Siskiyou	Yreka Journal	Yreka
Solano	Dixon Tribune	Dixon
Solano	River News	Rio Vista
Sonoma	Petaluma Journal	Petaluma
Sonoma	Santa Rosa Press-Democrat	Santa Rosa
Sonoma	Santa Rosa Republican	Santa Rosa
Stanislaus	Stanislaus County News	Modesto
Sutter	Sutter County Farmer	Yuba City
Sutter	Sutter Independent	Sutter
Tehama	Red Bluff News	Red Bluff
Trinity	Trinity Journal	Weaverville
Tulare	Tulare County Times	Visalia
Tuolumne	Union Democrat	Sonora
Ventura	Ventura Independent	San Buenaventura
Ventura	Ventura Free Press	San Buenaventura
Yolo	Winters Express	Winters
Yolo	Woodland Democrat	Woodland
Yuba	Marysville Appeal	Marysville

BOOKS AND PAMPHLETS RECEIVED BY EXCHANGE OR DONATION.

JULY, 1900, TO JULY, 1902.

The asterisk (*) denotes numerous pamphlets.

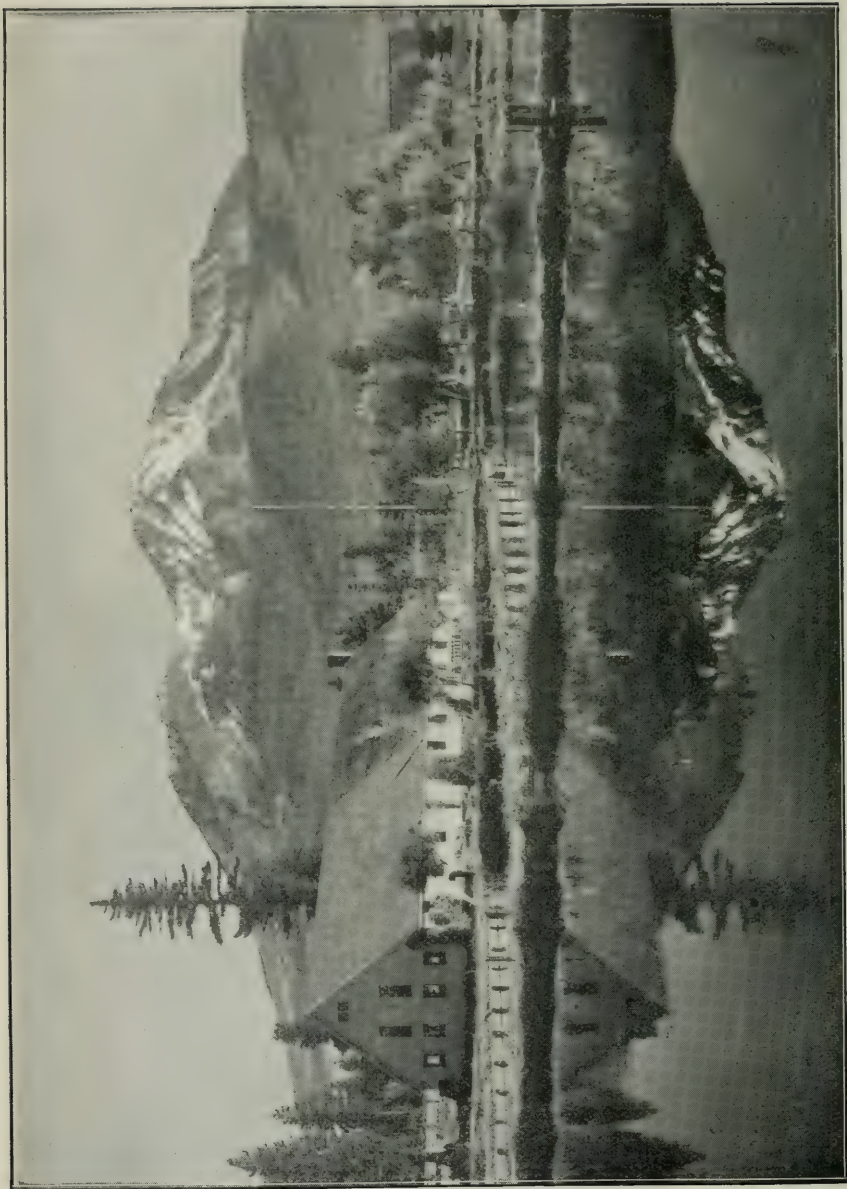
Names.	Vol.	Pam.	Names.	Vol.	Pam.
Acker, Finley	2		Cussons, May & Co.	1	
Alabama State Library	8		Davis, John F.	1	
Alameda (Cal.) Public Library		24	Delaware State Library	4	
Alaska: Department of Interior		8	Detroit Public Library		2
Alpine County Clerk	1		Drexel Institute		1
Amador County Clerk	1		El Dorado County Clerk	1	
American Bar Association	2		Field Columbian Museum		5
American Pharmaceutical Ass'n	2		Fitch, G. K.	2	
Argentine Republic	2		Florida Secretary of State	8	
Arizona Secretary of State	1		Fresno County Clerk	1	
Arkansas Secretary of State	10	11	George, Rev. Alfred	2	
Balch, T. W.	2		Georgia State Library	16	
Bancroft-Whitney Co.	1		Glenn County Clerk	1	
Boston Public Library	1	24	Goodwin, J. J.	1	
Brimley, George	2		Green, James		1
British Columbia: Dept. of Agric.	1	1	Green, Samuel A.	2	8
Minister of Mines	1		Hanks, Henry G.		1
Brooklyn Public Library		5	Hartford Theological Seminary		14
Butte County Clerk	1		Harvard University	3	3
Calaveras County Clerk	1		Hess, Henry E.	1	
California: Academy of Science	1	*	Hawaii: Dept. of the Secretary	1	
Board of Equalization	1		Supreme Court	2	1
Board of Horticulture		6	Hubbard, A. S.	1	
Governor's office	18		Humboldt County Clerk	1	
Legislature	1		Idaho: Secretary of State	3	
Medical Society	1		State Engineer		1
Secretary of State	138		State Treasurer		1
Pioneers		2	Illinois: Historical Society	3	1
State Mineralogist		3	Secretary of State	12	
State University	1	10	Indiana: Bar Association		1
Supreme Court	152		State Library	45	58
Canada: Govt. Stationery Office	2		Inyo County Clerk	1	
Department of the Interior	1	2	Iowa: Masonic Library		1
Chicago Public Library	2	3	Normal School		1
Cincinnati: Chamber of Commerce	1		Secretary of State	34	
Public Library	1	10	Kansas: Academy of Science	1	
Colby College		1	State Library	5	
Colorado: Auditor of State	1		Kentucky State Library	1	
Board of Agriculture		1	Kern County Clerk	1	
Secretary of State	14		Knickerbocker Press	1	
Clark, Mrs. J. G.	1		Kings County Clerk	1	
Columbia University		1	Lake County Clerk	1	
Colusa County Clerk	1		Lake Mohonk Arbitration Conf.		1
Connecticut: Bureau of Labor			Lassen County Clerk	1	
Statistics	1		Layman, J. D.	6	
State Library	23	11	Lick Observatory	1	
Contemporary Club, Davenport, Ind.		2	Lippincott, J. B.	1	
Contra Costa County Clerk	1		Los Angeles: Bureau of Com.	1	
Cornell University		3	Public Library	1	24
Coubertin, Pierre de	1		Louisiana State Library	6	6
Crocker Art Gallery	1		Madera County Clerk	1	
			Maine State Library	31	6
			Manitoba Government Printer	4	

BOOKS AND PAMPHLETS RECEIVED BY EXCHANGE, ETC.—Continued.

Names.	Vol.	Pam.	Names.	Vol.	Pam.
Manitoba Provincial Secretary	1	---	Rhode Island State Library	2	---
Marbury, Theo.	1	---	Riverside County Clerk	1	---
Marin County Clerk	1	---	Rogers, H. J.	2	---
Maryland: Historical Society	2	---	Rowell, J. C.	1	---
State Library	19	---	Royal Society of Canada	2	---
Massachusetts: Bureau of Labor	---	---	Sadler, R.	1	---
Statistics	2	---	Salem (Mass.) Public Library	---	24
Institute of Technology	4	---	Sacramento: County Clerk	1	---
Secretary of Commonwealth	30	1	Public Library	---	3
Mechanics' Institute Library	---	24	St. Louis Mercantile Library	---	1
Merced County Clerk	1	---	San Benito County Clerk	1	---
Michigan: Board of Health	3	3	San Bernardino Bar Ass'n	1	---
State Library	64	97	San Francisco: Board of Super-	---	---
Minnesota: Secretary of State	4	---	visors	1	---
State Geologist	1	---	Collector of Customs	1	---
State Library	1	---	County Clerk	1	---
Mississippi State Library	6	---	Mayor	---	2
Missouri Secretary of State	24	---	Produce Exchange	---	1
Modoc County Clerk	1	---	Public Library	2	26
Mono County Clerk	1	---	San Joaquin County Clerk	1	---
Montana: Historical Library	2	25	San José (Cal.) Public Library	---	4
Secretary of State	---	20	San Luis Obispo County Clerk	1	---
State Library	1	1	San Mateo County Clerk	1	---
Napa County Clerk	1	---	Santa Barbara County Clerk	1	---
Nebraska State Library	9	---	Santa Clara College (Cal.)	---	1
Nevada Secretary of State	4	52	Santa Clara County Clerk	1	---
Newark Public Library	---	1	Seward, Charles H.	---	2
Newberry Library (Chicago)	---	2	Shasta County Clerk	1	---
New Hampshire State Library	7	8	Shearer, Silvanus	1	---
New Jersey: Custodian's Office	5	1	Sierra Club	1	---
Public Library	3	2	Sierra County Clerk	1	---
State Library	14	4	Siskiyou County Clerk	1	---
New Mexico: State Library	2	---	Smith, W. F.	2	---
New York: Bar Association	2	---	Smithsonian Institution	35	3
Charity Organization	---	1	Society Colonial Wars (Cal.)	---	1
Civil Service Reform Ass'n	---	1	Sonoma County Clerk	1	---
Farmer's Association	---	1	Sons of the Revolution:	---	---
Mercantile Library	---	1	California	---	4
Public Library	---	25	Missouri	1	---
State Library	114	97	Pennsylvania	---	1
New South Wales Public Library	---	3	Virginia	---	1
North Carolina: Commissioner	---	---	South Australia Gov't Printer	1	---
of Labor	4	---	South Carolina State Library	14	---
State Library	3	---	South Dakota Secretary of State	8	---
North Dakota Secretary of State	9	---	Stanford University	2	24
Oakland Free Library	---	1	Stanislaus County Clerk	1	---
Ohio State Library	34	112	Sutter County Clerk	1	---
Oklahoma Territorial Library	2	---	Tehama County Clerk	1	---
Orange County Clerk	1	---	Tennessee State Library	6	4
Oregon Secretary of State	7	---	Texas State Library	13	---
Pacific Coast Railway Club	---	1	Theological Library (Boston)	---	1
Pennsylvania: Museum	---	3	Trinity County Clerk	1	---
State College	---	1	Tulare County Clerk	1	---
State Library	22	---	Tuolumne County Clerk	1	---
Philadelphia: College of Phar-	---	24	United States:	---	---
macy	---	2	Bureau American Republics	---	1
Free Library	---	2	Bureau of Education	3	---
Placer County Clerk	1	---	Civil Service Commission	1	---
Plumas County Clerk	1	---	Commissioner of Patents	117	---
Portland (Oregon) Library Ass'n	---	1	Congressional Library	9	5
Porto Rico Secretary	2	---	Department of Agriculture	7	11
Pratt Institute Free Library	---	1	Department of the Interior	2	4
Presbyterian Hospital (N. Y.)	---	1	Department of Labor	5	---
Princeton University	---	2	Department of Navy	1	2
Providence (R. I.) Public Library	---	1	Department of State	10	8
Purnell, W. F.	2	---	Department of Treasurer	5	1
Putnam, G. P. & Son	2	---	Department of War	---	1
Rhode Island: Bureau of Indus-	---	---	Interstate Commerce Com-	---	---
trial Statistics	1	---	mission	3	1
Secretary of State	6	---	Life Saving Station	2	---

BOOKS AND PAMPHLETS RECEIVED BY EXCHANGE, ETC.—Continued.

Names.	Vol.	Pam.	Names.	Vol.	Pam.
United States:			Washington:		
Superintendent of Docum'ts .	485	177	Secretary of State	6	—
University of Colorado	1	—	West Virginia State Library . . .	5	—
University of Missouri Library . . .	2	—	Western Australia Registrar . . .	—	—
University of Nebraska	3	—	General	4	1
University of Pennsylvania	2	—	Wisconsin: Academy of Science . . .	—	4
University of Vermont	2	—	Historical Society	1	—
University of Washington	1	—	State Library	11	—
University of Wisconsin	1	—	Tax Commission	1	—
Utah Secretary of State	3	—	Worcester County (Mass.) Law	—	—
Virginia: Bar Association	2	—	Library	—	3
State Library	14	—	Wyoming: Secretary of State . . .	1	—
Vermont State Library	14	9	State Library	1	—
Washington: Commission of	—	—	Yale University	3	7
Labor	—	1	Yolo County Clerk	1	—



SISSON HATCHERY, 1901. (By courtesy of Le Roy Lee, Sisson.)

SEVENTEENTH BIENNIAL REPORT

OF THE

State Board of Fish Commissioners

OF THE

STATE OF CALIFORNIA,

FOR THE YEARS 1901-1902.

COMMISSIONERS:

H. W. KELLER, <i>President</i> ,	-	-	-	-	-	-	SANTA MONICA.
W. W. VAN ARSDALE,	-	-	-	-	-	-	SAN FRANCISCO.
W. E. GERBER,	-	-	-	-	-	-	SACRAMENTO.



SACRAMENTO:

A. J. JOHNSTON, : : : SUPERINTENDENT STATE PRINTING.

1902.

REPORT.

To the HON. HENRY T. GAGE, Governor of the State of California:

SIR: In accordance with law, the State Board of Fish Commissioners has the honor to submit for your consideration its Seventeenth Biennial Report, being a record of its work and expenditures from September 1, 1900, to September 1, 1902.

We submit also the recommendations that our experience in carrying on this important work has suggested to our judgment, as tending to the betterment of both the fish and game interests.

Since the Sixteenth Biennial Report was submitted, the personnel of this Commission has undergone two changes. At a meeting held on April 5, 1901, W. W. Van Arsdale, of San Francisco, who had been appointed by you, vice C. B. Gould, presented his commission to the Board. On the same date W. E. Gerber, of Sacramento, who was appointed by you, vice Alexander T. Vogelsang, presented his credentials, and both gentlemen were seated as members of this Board. After the withdrawal of the retiring members, Mr. H. W. Keller was elected President of the Board, and has since served in that capacity.

Regular meetings of the Board have been held during the first of every month, and at such other times as became necessary to the welfare of our work. Complete minutes of all the meetings are on file in our office, rooms 8 and 9, fifth floor, Mills Building. Duplicate bills of every item drawn against the appropriations over which we have control, are also on file, and records of the same on our minute book and account book.

On April 5, 1901, Mr. H. T. Payne was appointed a regular deputy of this Board, to perform such other duties as might be assigned to him, and especially to attend to matters relating to the preservation of game.

On September 7, 1901, Mr. Frank A. Shebley tendered his resignation as an employé of this Commission to engage in a private enterprise. The Board instructed the Chief Deputy to write Mr. Shebley that his resignation was accepted with regret; that the members regarded him as a most competent fish culturist, who had always performed his duties with signal success.

On the same date Mr. F. J. Watson, of Sisson, whose employment had been intermittent, was appointed a regular assistant in the Hatchery Department.

On October 15, 1901, Mr. John P. Babcock, Chief Deputy of this

Board, presented his resignation, to take effect on October 31st. The resignation was accepted. On motion of W. W. Van Arsdale, the following resolution was adopted, and ordered spread upon the minutes of the Board and published in the forthcoming Seventeenth Biennial Report:

WHEREAS, After continuous and faithful service to this Board of more than eleven years, Mr. John P. Babcock, Chief Deputy, has this day tendered his resignation of that office, in order to accept a position of larger scope and greater emolument under the Government of British Columbia; and

WHEREAS, The work of Mr. Babcock in the California Fish Commission has ever been marked by energy, fidelity, and integrity; be it

Resolved, That the resignation aforesaid be accepted with profound regret. That the departure of Mr. Babcock is a distinct loss to the fishery interests of California. That we commend him to his new employers as a gentleman thoroughly equipped for the position he has accepted, as one whose administration of his new office will ever be marked by ability, economy, and success.

On October 15, 1901, Mr. Charles A. Vogelsang, who had served for four years as Assistant, Clerk of the Board, and Field Deputy, was elected Chief Deputy to fill the vacancy caused by Mr. Babcock's retirement.

On November 11, 1901, W. R. Welch, Game Warden of Santa Cruz County, was appointed a regular member of the force, to fill the vacancy caused by Mr. Vogelsang's promotion.

On May 8, 1902, Mr. E. T. Southern, who had been in our employ for three years as shipper of fish, tendered his resignation, owing to ill health.

On May 12, 1902, Mr. Hancock English, an experienced man, was appointed to fill the position made vacant by Mr. Southern's retirement.

The labors and responsibilities of the Commission have steadily increased, and it is plainly apparent that the scope and extent of the work have reached fully the limit of our financial resources. There are endless possibilities, which, if developed, would contribute to the general good, but whose greatest benefits would be felt by the masses.

The extent of our labors has been fully as broad and as thorough as circumstances would allow. With the means at our disposal, we believe we have given the State double value for every dollar of expenditure. These results could not have been accomplished without the hearty and intelligent co-operation of the officers and employés of this Board. It is safe to say that in no institution or department, whether of the State or a private establishment, can be found an equal body of men whose fidelity and efficiency can exceed that of the employés of this Commission.

It is the common cry of all public institutions that they require more money. It is our contention that the economic value of our department, as it relates to the public good, should have more substantial recognition. Working under practically the same appropriation, the Legislature has entailed upon us new and more arduous duties, that will require additions to our hatchery and patrol forces.

In fish culture our State is forging ahead to the front rank. We have

splendid hatcheries in almost ideal locations. Our hatchery employes are men of wide and valuable experience. Through their intelligent efforts our department of fish propagation has reached an enviable standard. We desire that this record be maintained, and that the State receive in larger measure the benefits of that knowledge, which will surely follow from a very modest increase in the amount appropriated for the support and maintenance of hatcheries.

Our principal hatchery, at Sisson, we have been unable to keep in a proper state of repair. The amount of our annual appropriation barely suffices to meet the running expenses. Quoting from our letter to you under date of September 29, 1902, we desire to again ask you to impress upon the Legislature the need for a more liberal recognition of this department:

To maintain the standard of the two principal hatchery stations for the propagation of salmon and trout, located respectively at Sisson and Tahoe City, we require additional funds to make such repairs and improvements as will insure permanency to the fine results already accomplished, besides placing the buildings and grounds in a condition commensurate with the dignity of a great State.

The scope of our work has so broadened that we are unable, under our present appropriation for support and maintenance of hatcheries, to place them in the condition that their importance to the general good demands.

The amount of money necessary to accomplish these ends would make but a very slight draft upon the general funds of the State, while the output of these stations could be increased fully fifty per cent.

After making a careful study of all the conditions and questions involved, it is the judgment of this Board that a special appropriation of \$10,000, to be devoted to hatchery changes and improvements, such as duplicate flume system, additional ponds, a dwelling house for the Superintendent of Sisson station, and the purchase of additional land on which it can be located, and the proper fencing of the State's property at Tahoe, would be a sum necessary to meet these requirements.

The Sisson station is the most important. We have there a larger number of stock fish than ever before in the history of this Commission. The success of a station depends upon the guaranteed supply of pure water. That, we already have in abundance, and sufficient to double our present output, but we have not the means to construct the necessary flumes and ponds. We have but a single flume, and that is poorly protected. Any interruption to the flow of water, or a temporary breakdown, would result in the loss of millions of fish that have cost the State a large sum to advance to their present state of perfection. Therefore a flume system in duplicate is imperative. It would be an additional safeguard and good business judgment to locate a modest dwelling for the Superintendent on the grounds, following the custom of the United States Commission, and of many States of the Union. Our pond system should be increased, so we could cut out and abandon some of the expensive spawn-taking stations operated in remote sections. We would secure a higher percentage of strong fry, because dangerous and expensive transportation of eggs would be avoided. Our forces could be concentrated, and in every sense would the conditions be improved and the main purpose for which this Commission was created more nearly fulfilled.

Our State already ranks high in the matter of fish propagation. We desire to maintain that standing. Our work furnishes a cheap food-supply to thousands. The poor people of our State are more largely benefited than any other class. In San Francisco our markets are selling food fish every day in the year, at retail, twenty-five per cent cheaper than they are selling in the New York markets at wholesale.

In the face of increased demand, our salmon supply is steadily increasing, since artificial propagation began. At the beginning of the present "close season," September 10th, there was the largest run of salmon in the Sacramento and San Joaquin rivers known in ten years.

This Commission planted 400 striped bass (fingerlings) near Benicia, in the Straits of Carquinez, some eighteen years ago. We are now marketing, of this delicious food fish, about two million pounds per annum in San Francisco. We have brought about the same conditions in the planting of shad.

We are planting millions of trout fry annually, which afford not only food, but also healthful sport for thousands of our people. We are devoting more attention to the propagation of Eastern Brook trout (*fontinalis*), a most desirable food and game fish, one that will flourish in the smaller streams, especially in the meadows of our high plateaus, where no other trout will remain. We are maintaining and increasing the supply of Rainbow trout, in the headwaters of the Sacramento, and in the McCloud and Truckee rivers, three of the famous trout streams of the world, that bring to their attractive banks anglers from all parts of the Union.

The planting of black bass has not received the attention it deserves, because of lack of funds. This valuable fish should be more widely distributed through the barren lakes and reservoirs of the State at the lower elevations, where trout will not flourish, so that a desirable and convenient food-supply would be placed within the reach of many more of our people.

As this Commission has never appeared before the Legislature with a deficiency in any of the funds over which it has control, and has carefully and scrupulously guarded every cent of expenditure, and because we desire to continue this record, and at the same time increase the scope of our work for the benefit of all our people throughout the State, as well as to maintain the high personnel of the employés of this Board, we most respectfully ask your assistance toward bringing about these desired ends, by presenting this matter to the Legislature of the State.

The work of patrolling the various rivers, streams, and bays of our State has been conscientiously and intelligently done, to the limit of our means. We have asked, through the State Controller, that the appropriation for the restoration and preservation of fish be increased \$5,000, which would merely restore it to the amount given for several terms, but which was reduced four years ago to meet the hardships of a series of dry years. That condition being altogether changed, and our State enjoying a wonderful degree of prosperity, we feel justified in making this request.

The last session of the Legislature provided us with wise and timely game laws. The Supreme Court of our State has set the seal of approval upon them by declaring them constitutional and just, "and in no sense discriminating." Never before have the game laws been so vigorously enforced; never have the people more generally observed and respected them, or indorsed and supported our efforts in apprehending violators. The number of arrests made, convictions obtained, and fines paid has in the past year, or since the new laws became operative, been greater than in any three previous years of the Commission's existence. While we feel proud of this record, and gratified with the indorsement of all intelligent, law-abiding citizens, there remains much to be done. There are portions of the State which we have been unable to reach, where wholesale slaughter of deer and other game is flagrant. We have made occasional raids, and have generally been successful, but with the immense territory to be covered by our limited force, we have not been able to concentrate our efforts long enough to leave a lasting impression.

We have been obliged to keep close watch of the principal market

centers. Some of the game-dealers were defiant, and boasted that the non-sale clause and bag limit would not stand the test of the higher courts. Most of them attempted evasions in one form or another. Our vigilant employes soon showed detective ability of no mean order, and as fast as a scheme was developed checkmated it. These tactics have kept our small force around the larger cities, and have not permitted of detailing them except for limited trips into the interior. In other words, we have not been able to give the attention to the market-hunter in the field that he deserves.

The present game laws are fulfilling the purpose of their enactment, "the preservation of the game." That which is taken and disposed of according to law is distributed with more justice and equity to all the people of the State than under any other previous code of game laws. At the same time, all varieties of game are increasing. Deer are more plentiful in the populous sections of the State than for many years. Quail are in abundance. Doves are numerous, and the supply of wild ducks is increasing.

We are heartily and sincerely in favor of retaining the present laws. We recognize slight inequalities, but we believe it to be the part of wisdom to bear with them for two years more, especially when we consider that no one suffers. In the meanwhile the supply increases. Public officers, the courts, the peace officers, and the public generally are becoming more familiar with the advantages and forms of the present law. Nothing is more harmful than frequent and trifling changes. The house now stands upon a rock. Let it remain there.

FINANCIAL STATEMENT.

The resources and expenditures of this Commission have been as follows for the fifty-second and fifty-third fiscal years, ending June 30, 1902:

FIFTY-SECOND FISCAL YEAR.

	Resources.	Disbursements.
Appropriation for support and maintenance of State Hatcheries..	\$10,000 00	\$10,000 00
Appropriation for restoration and preservation of fish	7,500 00	7,500 00
Appropriation for restoration and preservation of game	2,500 00	2,500 00
<i>Game Preservation Fund—</i>		
Receipts from fines from April 29, 1901	74 75	
Balance on hand June 30, 1901.....		74 75
<i>Fish Commission Fund—</i>		
Balance on hand July 1, 1900	2,420 07	
Receipts from licenses and fines.....	8,578 34	
Amount drawn from fund during year		5,836 63
Balance in fund June 30, 1901.....		5,161 78
Totals	\$31,073 16	\$31,073 16

FIFTY-THIRD FISCAL YEAR.

	Resources.	Disbursements.
Appropriation for support and maintenance of State Hatcheries..	\$10,000 00	\$10,000 00
Appropriation for restoration and preservation of fish	7,500 00	7,500 00
Appropriation for restoration and preservation of game	3,750 00	3,750 00
Appropriation for steelhead propagation, available January 1, 1902	2,000 00	
Amount drawn from fund during year		694 85
Balance on hand June 30, 1902		1,305 15
<i>Game Preservation Fund—</i>		
Balance on hand July 1, 1901	74 75	
Receipts from fines during year	2,965 68	
Amount drawn from fund during year		1,950 16
Balance on hand June 30, 1902		1,090 27
<i>Fish Commission Fund—</i>		
Balance on hand July 1, 1901	5,161 78	
Receipts from licenses and fines	6,906 25	
Amount drawn from fund during year		7,232 75
Balance on hand June 30, 1902		4,835 28
Totals	\$38,358 46	\$38,358 46

TABLE OF ARRESTS AND FINES PAID.

The following statement gives in brief the history of our work as it relates to the efficiency of our patrol force. It shows that they have been fully occupied; that their work has been thorough and far-reaching. The variety of cases, scattered all over our large State, indicates that our deputies have been active and energetic. The large number of cases in which the defendants pleaded guilty indicates the thoroughness with which the evidence had been collected, and the amount of fines paid is an indication that our people are beginning to realize the need for the enforcement of fish and game laws.

For the two years ending August 31, 1902, our patrol force has to its credit a record of 343 arrests. Of this number, 228 pleas of guilty were entered, showing that the defendants realized public sentiment was changing; that it was both dangerous and expensive to stand trial. Of the arrests made, 105 were for violations of the fish laws, and 238 for violations of the laws relating to game. The total amount of the fines imposed aggregates the substantial sum of \$9,597.75. Of this amount, \$4,942.75 was paid by violators of the fish laws and \$4,655 by those who had violated the game laws.

Of the \$4,655 paid into the State Treasury for infractions of the game laws, \$3,020 was paid during the year beginning September 1, 1901, and ending August 31, 1902; or since the new game laws were enacted. Of the total amount of the fines from all sources, \$1,910 was paid to County Treasurers, and the remainder, \$7,687, was paid into the State Treasury.

In addition to cases which were brought regularly into court, there have been examined hundreds of complaints, some of which were not made in good faith, but many in which sufficient evidence could not be obtained to warrant a prosecution.

Our deputies have also made many seizures of fish and game in transit—fish that were underweight or had been taken in violation of law; prohibited game offered for sale, or shipped contrary to law; violations of the bag limit. In many cases conviction followed the seizure. In others we were unable to locate the shippers, who resorted to fictitious names. Their punishment was effected by confiscating the shipments, which meant a loss of time, labor, material, and goods. More than 10,000 pounds of striped bass, 3,000 pounds of salmon, 6,000 pounds of steelhead, and 400 pounds of trout were seized and donated to various charitable institutions of San Francisco and vicinity.

About 80 dozen quail, 90 dozen ducks, 20 dozen doves, and snipe, grouse, pheasants, and venison in smaller lots were distributed among the hospitals, the orphan asylums, and old people's charity homes of this city. The Protestant, the Hebrew, and the Catholic orphan asylums were among the beneficiaries. From all of these institutions we have received most grateful letters of acknowledgment. We respectfully submit that a better showing has not been made in the history of this Commission.

The table above referred to is as follows:

GAME CASES.

Summary of Arrests made by Deputies of the Fish Commission, and Disposition of Cases, for Two Years ending August 31, 1902.

Number of Arrests	Violation Charged With.	Pleaded Guilty	Convicted	Acquitted	Dismissed	John Doe Complaint Parties Unknown	Fines.	Number of Days Imprisonment
4	Doves, "bag limit".....	1	2	1	-----	-----	\$75 00	----
14	Killing or possession of doves, "closed season".....	11	-----	-----	3	-----	325 00	----
9	Ducks, "bag limit".....	5	2	2	-----	-----	200 00	----
21	Killing or possession of ducks, "closed season".....	13	-----	2	6	-----	345 00	----
5	Quail, "bag limit".....	4	-----	1	-----	-----	125 00	----
42	Killing or possession of quail, "closed season".....	37	2	3	-----	-----	1,000 00	8
49	Offering quail for sale.....	25	-----	9	-----	15	625 00	----
1	Trapping quail.....	1	-----	-----	-----	-----	25 00	----
1	Deer, "bag limit".....	1	-----	-----	-----	-----	25 00	----
46	Killing deer, "closed season".....	38	3	-----	5	-----	1,005 00	90
10	Possession of deer meat, "closed season".....	9	-----	1	-----	-----	220 00	----
9	Killing female deer or fawn.....	8	-----	-----	1	-----	200 00	----
8	Possession of female deer hides.....	7	-----	-----	1	-----	150 00	50
5	Removing evidence of sex from deer hide.....	2	-----	1	2	-----	60 00	----
1	Selling deer meat.....	1	-----	-----	-----	-----	25 00	----
6	Night shooting.....	1	-----	5	-----	-----	25 00	----
1	Shooting on inclosed land.....	1	-----	-----	-----	-----	5 00	----
4	Possession or killing of elk.....	1	1	-----	2	-----	75 00	----
1	Shooting robins.....	1	-----	-----	-----	-----	40 00	----
1	Shooting meadowlarks.....	1	-----	-----	-----	-----	5 00	----
238		168	10	25	20	15	\$4,555 00	148

FISH CASES.

Summary of Arrests made by Deputies of the Fish Commission, and Disposition of Cases, for Two Years ending August 31, 1902.

Number of Arrests	Violations Charged With.	Headed Guilty	Convicted	Acquitted	Dismissed	John Doe Com-plaints, Parties Unknown	Fines.	Number of Days' Imprisonment
12	Catching or possession of salmon, "closed season".....	7	1		4		\$1,200 00	140
13	Catchingsalmon Saturday or Sunday	7			6		1,200 00	100
3	Spearing steelhead.....				3			
7	Possession or selling underweight striped bass.....	6	1				140 00	
3	Striped bass, "closed season".....	2			1		45 00	
1	Black bass, "closed season".....	1					20 00	
8	Trout, "closed season".....	4			4		115 00	
4	Catching trout with net.....	3			1		65 00	
7	Possession or selling underweight trout.....	5			2		125 00	130
2	Spearing trout.....	2					40 00	
16	Using set-net.....	8	4	1	3		1,044 00	78
3	Sturgeon, "under size".....	2			1		40 00	
1	Catching or possession of young of fish (Chinese).....	1					30 00	
6	Possession of female crabs.....	4	1		1		280 00	
1	Fishing without license.....	1					5 75	
8	Shrimps in possession, "closed season".....	1	7				183 00	2
3	Using explosives.....			2	1			
*2	Dumping slabs or sawdust into waters of the State.....		1				250 00	
	Set-nets removed from waters (owners unknown).....					28		
1	Abalones, "illegal size".....	1					20 00	
4	Crawfish, "closed season".....	4					140 00	
105		59	15	3	27	28	\$4,942 75	450

* One case pending.

Twenty-eight set-nets removed from water. Owners unknown. Lines destroyed. Seized 10,000 pounds of underweight striped bass. Donated to hospitals and asylums. Seized 400 pounds of trout. Donated to hospitals and asylums. Removed 390 sections of Chinese sturgeon lines. Owners unknown. Lines destroyed.

DEFICIENCY CLAIMS.

The last session of the Legislature having failed to pass a General Deficiency bill, and the small appropriation for the payment of costs of prosecutions for violations of fish laws having been exhausted, there were left unpaid claims aggregating \$836.51. The fund from which such claims are paid is in no sense under our control. The bills are presented direct to the State Board of Examiners, and do not pass through our hands. The services for which these claims were presented had been rendered in the interest of our work. We felt a moral sense of obligation. Many of the Justices and Constables had performed their duties

in good faith. They looked to this Commission to pay their just fees and could not understand—the services relating to our work—why we should not pay them. This Board addressed to you a communication asking your assistance in the matter of approving such claims before the State Board of Examiners, when drawn upon the Fish Commission Fund. We were much gratified by your approval of our plan, which had the indorsement of the State Controller, Hon. E. P. Colgan. At a meeting of this Board, deficiency claims to the amount of \$499.51 were approved, sent to the Board of Examiners, and paid out of our small funds. The money was paid to the respective claimants, and we hold the receipts for the same in our office.

The remaining claims, aggregating \$337, were returned to the State Controller, without our approval, for the reason that they are, in our opinion, unfair or excessive charges against the State.

RECOMMENDATIONS AS TO PAYMENT OF CLAIMS IN FISH CASES.

To avoid a recurrence of such an awkward situation, and for the better reason that with our full knowledge of what services were performed, we are in a position to audit such claims fairly, we believe that these costs should be paid out of a fund over which we have control, namely, the Fish Commission Fund, thereby following the same procedure as in the payment of costs and expenses relating to game cases, which are paid, after approval by this Board, from the Game Preservation Fund. This would greatly simplify matters for the Justices and Constables, who could then present their bills direct to this Board, and avoid the long delay and expense of collecting a small claim. At present, after a claim for fees in fish cases has been approved by the State Board of Examiners, and the claimant notified to that effect, he is obliged to give a power of attorney to some agent to collect his small fee, the expense of which sometimes equals the amount of the claim. This has always militated against this Commission, and has been the reason given why certain of our cases received no attention, Justices and Constables claiming that there is "too much red tape and expense to get our money." This is not to be wondered at. It is hard for them to understand why, with two claims for fees, one for a fish case and the other for a game case—both being under our control—they must send one bill to Sacramento and the other to this office. One costs him nothing for collection, while the other is almost eaten up by the expense.

We have conferred with the State Controller on this matter, and with his assistance have prepared an Act to amend the Act approved February 28, 1887, relating to costs of prosecuting violations of fish laws,

and would most respectfully urge that the same be recommended to the Legislature for passage.

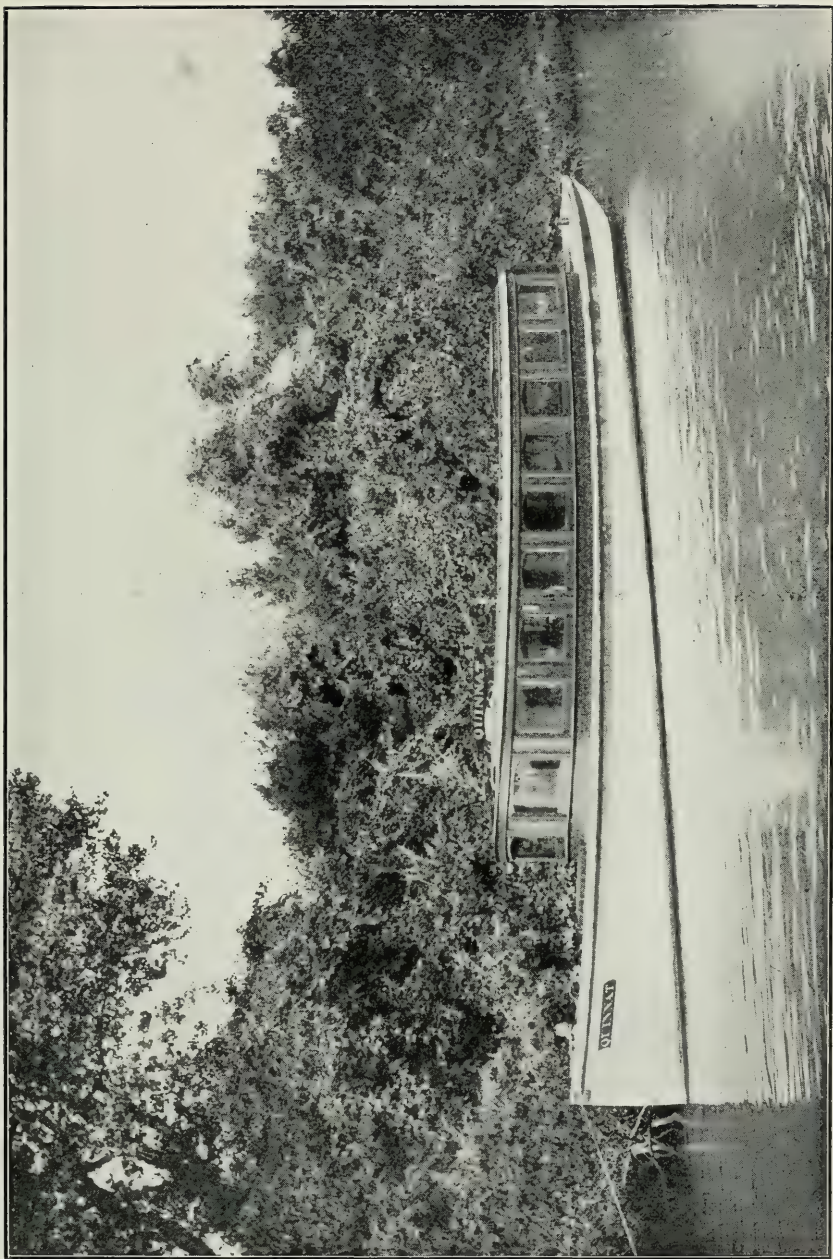
In addition to the foregoing recommendations as to costs of prosecuting violations of fish laws, and in furtherance of the plan of having all fines paid into the Fish Commission Fund, we have recommended to the State Controller, and he has approved our recommendations, that the following provisions of law relative to the preservation of fish, viz., Sections 629, 635, and 637, Penal Code, and the Act of April 16, 1880, to provide for fishways, etc., be amended, so that these provisions of the law may be simplified, and trials for violations be in the Superior Court, and fines paid into the Fish Commission Fund. Thus such amendments will provide that all the fines for the violations shall be payable into the Fish Commission Fund, the same as is done in the case of all other violations of the fish laws, and furthermore, the amendments will place the trials for violations thereof (as is the case for violations of the salmon and set-net laws) in the Superior Court, instead of in the Justice's Court, and from experience we emphatically assert that the Superior Court is the proper forum for the trial of such violations, where the proceedings can and will be properly and intelligently conducted, and where the defendants are not allowed to go free through the indifference of juries impaneled in a Justice's Court. The ordinary violator of the law seems to have little respect for a Justice's Court, but when he knows that if he violates a law he will be put upon trial in the Superior Court, he hesitates and generally desists from laying himself liable to arrest and to a severe punishment for his lawlessness.

These recommendations being carried out, it will be unnecessary for the Legislature to make a special appropriation, as has been done heretofore, to pay claims arising from prosecutions for violations of the fish laws.

THE LAUNCH "QUINNAT."

This indispensable auxiliary to our patrol force has been in constant use during the past two years, patrolling the bays and rivers both day and night, collecting licenses from the fishermen, and making night runs for violators of the fish laws. The new twenty-horse power Otto engine has cost practically nothing for repairs, and maintains its record for economy in using one third less gasoline than the engine it replaced. During the last spring cruise she coursed over 1,100 miles. The old steel shaft becoming badly worn after five years of constant service, it has been replaced with a new one of phosphor bronze.

By reason of the noiseless exhaust, quite a number of violators who were attempting night operations were apprehended. The fines collected have more than met the expenses of the boat, aside from the salary of the men.



FISH COMMISSION LAUNCH "QUINNAT."

The boat is in charge of Mr. John H. Davis, our efficient license collector for the past eight years. He is assisted by Mr. Hugh Walters. They constitute the crew, and keep the boat at all times in perfect condition. When out of commission, these deputies are detailed to duty with the land forces.

THE SALMON LAW.

There still exists the same desire, in certain portions of the State, to tamper with the present very excellent law for the protection and preservation of salmon. This sentiment arises, however, from an entire lack of understanding of the subject. Unfortunately, some of our newspaper friends, with more enthusiasm than knowledge, are largely to blame for its existence, as well as for its continuance. The subject has been dealt with quite fully in the Fifteenth and Sixteenth Biennial Reports of this Commission. The great importance of the question is the excuse for extended reference to it now.

The chief criticism arises because of the "tide-water clause," which continues the close season, above tide-water, one month longer than below. In other words, the complete close season which exists in all waters of the State from September 10th to October 16th is lifted in tide-water after October 16th, but still remains in force above the tide-water limits until November 15th. It is no doubt hard for many of the people living in those sections along the upper Sacramento and upper San Joaquin rivers to realize, when those rivers are full of salmon, that a prohibition against their capture is not a discrimination. They do not realize, however, that this law is framed primarily to protect the salmon on their breeding-grounds, in order that the supply may not be diminished; and secondly, that to have any marketable salmon, the fishermen of Humboldt Bay should be allowed to take them, at the only time they are found in their waters—in the Fall. The fish are then fresh from the sea and in prime condition, while exactly the reverse of this is true of the salmon in the Sacramento and San Joaquin rivers, at that time. In these rivers, at the lowest stages of the water, with the prevailing high temperatures, and the fish heavy with spawn, they are really unfit for food.

The complaints come principally from the farmers living along the upper Sacramento. They can all appreciate what it means to shake all the blossoms from a fruit tree; they know it means no fruit. But when the same practice is applied to salmon, they do not seem to understand it, while in reality the injury is much greater. In the case of the tree, they are obliged to wait only another year, when it again puts forth buds. To make the illustration clear and the parallel complete, it can be shown in this way: If after the blossoms are all destroyed, then cut down the tree. They can all understand that. But they

would do precisely that with the fish, and still expect the supply to be kept up. They forget that while the fisher-folks of Humboldt have no salmon in the spring, the Sacramento and San Joaquin farmers are getting them in great abundance, in prime condition, and disposing of them at double the price the fall run commands. In the months of April, May, and June of 1901 and 1902, the fishermen along the upper Sacramento were shipping many tons of fish for which they received as high as seven cents per pound, when not a salmon was to be found in Humboldt Bay. Small stations like Tehama and Chico, during May of 1901, also May of 1902, each shipped as high as four and one half tons of fresh salmon in a single day. Seldom would the shipments be less than a ton a day.

Suppose, for a moment, that the law were to be open all over the State irrespective of the tide-water clause. What would prevent fifty or sixty of the six hundred boats that fish for salmon below Sacramento City, from following the schools of salmon up the river, there being no salmon for them to fish for or take in the lower rivers, and certainly no canneries in operation? These men pay a license to fish in the public waters of the State. They would have a legal right to go anywhere up the river in pursuit of the schools. They are skillful and experienced fishermen, and it is safe to say that, with their better methods and finer fishing gear and boats, they would have practically all the salmon out of the river before they reached Chico bridge. What, then, would become of the industry? Nothing prevents them from going above Sacramento and doing that very thing except this same law against which some thoughtless people rail.

It is often said that this law is framed in favor of the canneries and the fishermen of the lower river. Our answer is, that the law is framed in the interests of the salmon industry, as applied to all our people, and not in the interests of any particular section. We can not change by legal enactment the nature and habits of the fish, but, knowing them, we can recommend such laws as will tend to their protection, preservation, and larger increase. We therefore strongly recommend that the present salmon law be not changed in any particular. Under its workings the supply of salmon is increasing, in the face of a greater demand. It shows conclusively that protection during their spawning time is responsible for this result. It permits the hatcheries to collect the seed to continue the work of propagation. It supplies our markets with fresh salmon in great abundance, thereby placing a cheap and most nutritious food before thousands of the working classes in our cities, whose means do not permit of buying meat every day. And it even furnishes a supply to other citizens of our country in neighboring States. Against all these advantages and benefits we can see no valid argument or sound reason. We can not appreciate that it were better

for the few, very few farmers, along the upper Sacramento River, or tributaries—merely to obtain an inferior and unwholesome fish—to change this law, or modify it one iota, as against the overwhelming majority of our people who are being benefited by it in its present natural, reasonable form.

Quoting from the Sixteenth Biennial Report we repeat: "We are constantly asked what proof we have that the work of propagation of salmon has been of benefit to the State. In reply, we refer to the figures of the number of pounds of salmon sold in San Francisco markets each year. These figures are reliable so far as they go, but they do not show all of the fish marketed in that city. They have been taken by our deputies from the invoice books of only the leading fish-dealers. It may be added, in passing, that only these leading dealers keep any record. While these figures do not show a remarkable increase from year to year, they do show an increase; while before the State began the work of propagation, the records show that the fish were diminishing from year to year, and at an astonishing rate. Had the State failed to take up this work, the product of our rivers would have ceased by now. As it is, the Sacramento River is the only salmon river on the coast that shows an increase year after year. Some critics of this work have expressed surprise that the work of propagation has not produced greater results. We think they lose sight of the fact that fishing has increased; that irrigation and cultivation of our valleys have cut off the extent of fish-rearing waters; that with the increasing settlement of our lands, natural production has almost ceased; and that in the natural order of events there would be no run now but for the propagation which the State carried on. We do not desire to be understood to say that there is a marked sentiment which questions the success of the State in this line of its work, for the converse is true. The interest of our people in this work continues to increase."

SALMON PACK.

The salmon runs are steadily and surely increasing, and it is beyond question due to the work of artificial propagation. The demand is also increasing. Thousands of fresh salmon are taken for cold-storage shipment, and sent to Eastern States. Tons are packed in ice and sent direct from our local dealers in San Francisco to the nearby States. It is a remarkable fact that as high as five tons per day have been sent into the State of Oregon. The competition has been so keen among the buyers of fresh salmon that eight cents per pound has been paid to fishermen on the rivers. The increase in value of the product, and the larger amount being handled, fully justify the expenditures of the State.

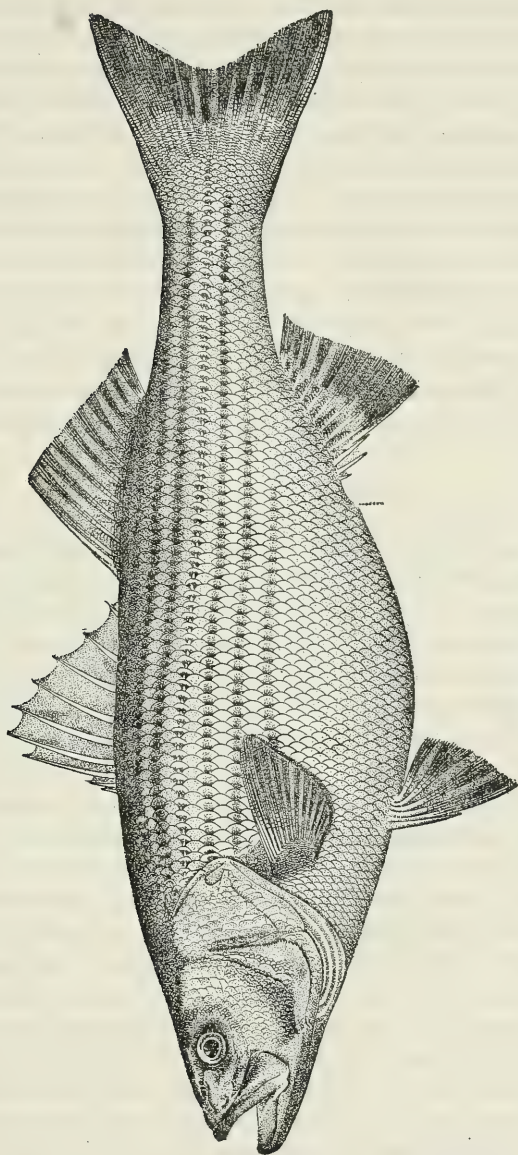
The following table represents the number of cases of Sacramento River salmon packed since 1890, and shows an encouraging increase:

Year.	Cases.	Year.	Cases.
1890 -----	25,065	1897 -----	38,543
1891 -----	10,353	1898 -----	29,731
1892 -----	2,281	1899 -----	33,227
1893 -----	23,336	1900 -----	39,304
1894 -----	28,463	1901 -----	50,064
1895 -----	25,185	1902 -----	48,172
1896 -----	13,387		

STRIPED BASS.

From a commercial standpoint the striped bass stands next to the salmon as a food fish in this State. This fish was brought from the East, and planted in our waters, and has since continued to multiply. At the last session of the Legislature the provision of the law for its protection was amended so as to make the month of June of each year a "closed season," and to reduce the weight limit of the fish that could be taken from three pounds to one pound. After noticing the practical workings of this law, this Board is of the opinion that there is no necessity for a closed season, and that the weight limit, in our opinion, should be restored to three pounds. Some of our principal reasons for these recommendations are that the amount of this kind of fish which has been taken during the past two years has been as great as ever, but the size of the fish taken has been smaller. When the weight limit was reduced to one pound, the fishermen reduced the size of the meshes of their nets, so as to enable them to catch such small fish, and it has encouraged the fishermen to use the "cincinoro," which is a net with meshes of about two inches. This kind of net is operated by four men in a salmon boat, and is used on a rising tide, close to the mud flats, where the school of bass go to feed. While two of the men pull the boat the other two men tend to the net. The net, which is like a seine, is laid out in a circle around the school of fish, and as much as a ton of fish has been taken with one haul.

Striped bass, like other large fish that come into our bays, run in large schools. If the weight is again changed to three pounds, these fishermen who use the "cincinoro" net would have to go out of business, as the most of their fish would weigh less than three pounds, and they would be unable to sell them. Since the law reduced the weight of the bass that may be caught, there have been thirty or forty boats using the "cincinoro." This excessive use of this net for catching small bass naturally decreases the supply, and destroys them when they are too young, and it is almost the unanimous wish of the legitimate bass fishermen that the weight should be again changed to three pounds.



STRIPED BASS—*Morone saxatilis*.

Small bass in large quantities in a box will not keep over twenty-four hours, as they become soft and soon spoil, while the larger bass will remain in good condition for two or three days, and are a better food fish. During last April and May, bass were the cheapest fish sold on the Sacramento River, they being sold during April for but one cent and one and a half cents per pound, while the salmon were sold for five and six cents per pound. Considered from an economic standpoint, it appears almost a crime to permit of the destruction of thousands of pounds of these young fish, when they can add so much more to our general food-supply if permitted to attain their average weight. They are commonly found in our markets weighing forty pounds each. That these small fish are not regarded with favor in their native waters can best be shown by referring to quotations of the New York markets, where the large fish throughout the year command twice the price per pound that obtains for the small fish. For these reasons we believe that the bass will be better protected by making three pounds the minimum weight for striped bass which may be caught or possessed.

SISSON HATCHERY.

This station has been operated during the past two years, as usual, under the able supervision of Mr. W. H. Shebley, whom we regard as one of the foremost fish propagators of this country. Combined with his good practical judgment, Mr. Shebley has delved deep into the scientific side of all questions pertaining to fish culture, with the result that the State of California has a splendidly equipped hatchery, equal to the best on the Pacific Coast, lacking only in those particulars which money alone can correct and improve. We have there an abundant and never failing supply of pure water, and a large number of ponds filled with thousands of splendid specimens of the fish we propagate. Our grounds are artistically laid out and set with trees and flowers. Nature has done much, and under Mr. Shebley's economical administration the best possible results have been achieved with a minimum of expenditure.

During the past year we have added to our number of ponds by constructing a large one, 110 by 90 feet, with an average depth of 5 feet. We could with profit to our work make use of more ponds. As our stock fish used for breeders increased in size and numbers, requiring more food and attention, it became apparent that the old, tedious, and expensive method of grinding and mixing, by hand, the liver and boiled shorts on which our fish are fed, was obsolete. We therefore purchased, last July, in Philadelphia, a two-horse power Otto gasoline engine, which was installed and has since given great satisfaction. Where formerly it required two men, six hours per day, every day in the week, to prepare the food and feed the fish, the work is now performed by one

man in from three to four hours. The cost for fuel does not exceed ten cents per day. This outlay for the engine will be more than repaid in six months.

It is our purpose to develop the possibilities of this fine plant, and we hope in about three years to secure a sufficient number of Rainbow trout eggs to justify the abandonment of all the expensive, uncertain, outside egg-collecting stations. In three years' time we should be able to take at least two million eggs per annum from this station. This can not be done, however, unless our means permit us to give the ponds and the fish the necessary care, failing which, the fish are liable to zymotic diseases, caused by the bottoms becoming foul. The source of foulness in the water is the uneaten particles of food and the effete matter that comes from the fish. If these are allowed to collect in any quantity danger is imminent.

In December, 1900, the then Board decided to discontinue the propagation of Loch Leven and German Brown trout, as in its opinion these fish were too predaceous. Orders to that effect were issued, with instructions to secure the eggs from the breeders then on hand for distribution in the lakes in the eastern part of the State. Over 500,000 eggs were secured, and the fry hatched and distributed during 1901. By this order our stock in the ponds was reduced to 200 adult Eastern Brook trout, 3,000 Rainbow yearlings, 1,700 Eastern Brook fry, and a few hundred fish of different varieties.

In the spring of 1902, some of the more precocious of the Rainbow trout had come to maturity, and 144,000 eggs were secured. The coming season there will be about 2,300 Rainbow trout that will reach maturity. Our take of eggs should then reach 500,000.

We have also about 1,200 Eastern Brook trout to spawn this fall. They should furnish 250,000 eggs. This summer 20,000 prime Rainbow trout fry were deposited in a pond, where the water was allowed to become comparatively warm to promote their growth. With proper care they will soon develop into a fine lot of stock fish.

We have now in the ponds at this station the following varieties and numbers of each:

Adult Rainbow Trout.....	2,300
Two-year-old Rainbow Trout	500
Adult Eastern Brook Trout.....	1,276
Two-year-old Eastern Brook Trout	1,600
Seven-month-old Rainbow Trout fry.....	20,000
Yearling Shiners.....	5,000
Yearling Sunfish.....	5,000
Adult trout in the exhibition pond consisting of the following varieties: Loch Leven, German Brown, Shebley Hybrids, Mackinaw, Rainbow, Cut-throat, Eastern and Dolly Vardens	
	600

With such an alluring inducement to the poacher, he has been active. We find the list of missing is large. As they have not died, there can be but one explanation.

We should have sufficient means to permit of the construction of a cabin or cottage on the grounds for the use of the employés, also a cottage for the Superintendent. Birds, animals, or poachers will not frequent a protected place. As the matter stands, there is absolutely no protection for the State's property at night.

At such times as Mr. Shebley is detailed away from this station, the interests of the State are carefully guarded by Mr. E. W. Hunt, a thoroughly competent Superintendent, who has had for many years charge of the summer stations on Lake Tahoe.

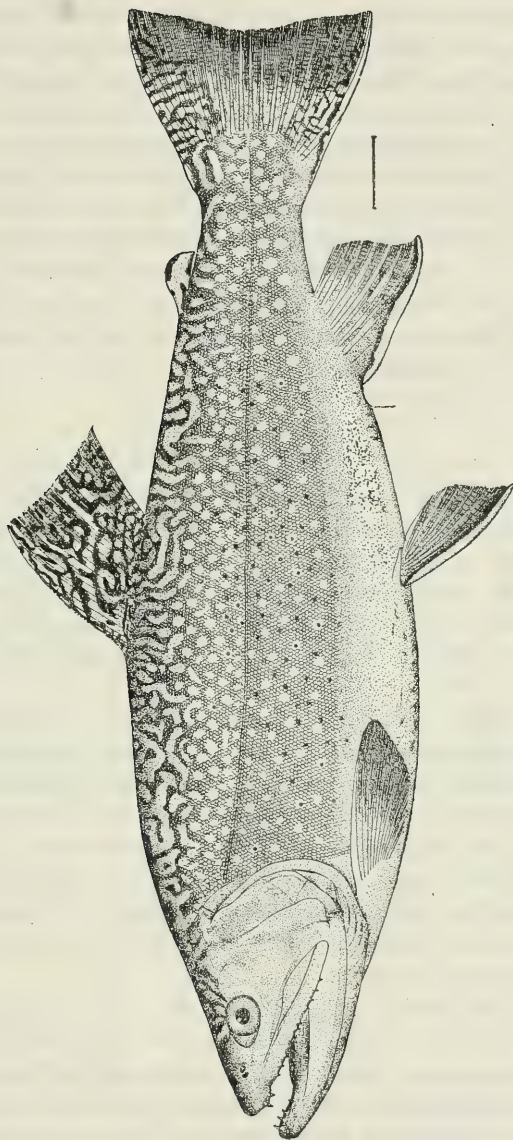
Sisson Hatchery is the principal station at which salmon eggs are hatched, and from which the fry is liberated into the headwaters of the Sacramento River. During the two years beginning September 1, 1900, and ending August 31, 1902, there have been hatched and liberated 18,021,540 swimming salmon fry from this hatchery, or a grand total of all kinds of fish of upward of 21,000,000, as indicated by the following summary of distribution:

Summary of Distribution of Fish from Sisson Hatchery during years 1901 and 1902.

	1901.	1902.
Salmon	3,239,000	14,782,540
Eastern Brook Trout	9,000	6,000
Cut-throat Trout (Mykiss)	95,000	630,000
Loch Leven Trout	311,000	1,000
German Brown Trout	185,600	500
Rainbow Trout	878,900	867,500
Black Bass (yearlings)	150	620
Totals	4,718,650	16,288,160

EASTERN BROOK TROUT.

From our experience with small plants of Eastern Brook trout in some of the smaller mountain streams, in fact too small for the Mykiss or Rainbow trout to flourish in, we have found that these fish have permanently established themselves. This has led us to renew our efforts toward propagating them for these waters. We have now in our Sisson ponds about 1,200 stock fish to be used as breeders, from which we hope to collect a sufficient number of eggs to give us 250,000 fry for distribution in 1903. In addition to this lot, we were fortunate in making arrangements with the U. S. Fish Commission whereby we will secure 200,000 Eastern Brook trout eggs in exchange for an equal number of Rainbow eggs. This number added to what we take from our pond fish, should give us about 300,000 fry for our next distribution. This fish is the most beautiful of the trout species and is, besides, very gamey. It attains a larger growth in our waters than it does in the waters of the Eastern States. It will fill a place in our work that will not inter-



EASTERN BROOK TROUT—*Salvelinus fontinalis*.

fere with any other department, spawning, as it does, in the late fall. All of the plateaus of the high Sierras have meadow streams, in some of which the water is sluggish and deep, none of them very large. No other variety of trout is found in them, nor do the Mykiss or Rainbow stay in them when planted. The peculiarity of the Eastern Brook trout is that they will remain and increase. There are probably several thousand miles of these small streams that can be stocked, which will not only add to the general food supply, but will furnish sport to the angler, the camper, and the tourist. There are thousands of our people who go to the mountains for their vacations, many of whom are not expert anglers. The Eastern Brook trout takes either fly or bait, and does not require such a degree of skill to land him as does the Rainbow. In other words, the common fisherman will have, in the Eastern Brook trout, the most desirable game and food fish that he can take. We confidently look forward to splendid results in the next two years from the propagation of this species.

SHRIMPS.

The last Biennial Report of the Board recommended that there should be a law enacted making the months of May, June, July, and August of each year a close season for taking shrimps, in order to protect the young fish in the bay from being destroyed by the Chinese shrimp-fishermen. Acting upon this suggestion, the Legislature amended Section 628 of the Penal Code, and established such close season for shrimps.

As soon as May 1, 1901, the commencement of the close season, arrived, the Chinese shrimp-fishermen, through their attorneys, requested that some Chinese fishermen be arrested for violating the law, in order that they might attack the constitutionality of the law, upon various grounds, such as that the title of the Act referred to the preservation of fish, and that shrimps could not be included within such general reference; that it invades the rights of property and is a practical inhibition of a business, and that it is in violation of certain provisions of the State and Federal constitutions.

As requested, this Board caused the arrest of some Chinese shrimp-fishermen for violating the law, and they were convicted in the Police Court of San Francisco. After conviction they applied to the Superior Court of San Francisco for writs of habeas corpus, and after our attorney and their attorneys had made extended oral arguments and filed briefs upon the questions involved, Judge Carroll Cook and Judge William P. Lawlor held that the law was constitutional and not subject to the criticisms and attacks made thereon by the fishermen's attorneys. Not satisfied with the decision of these eminent judges, they applied to

the Supreme Court of the State for writs of habeas corpus, and that tribunal also denied their applications and affirmed the decision of the lower court. Still undaunted and dissatisfied, they made application to Judge De Haven, of the United States District Court, to be released from the judgments rendered upon their conviction, hoping to convince him that the mighty Constitution of the United States had been ruthlessly assailed, but that learned Judge also refused to comfort them or to give them any relief, and determined that the law in question invaded no right guaranteed by the Federal Constitution. He denied their application, and gave them the alternative of paying the fines which had been imposed, or of suffering imprisonment in default of such payment. The result was that about \$180 in fines was paid into the State Fish Commission Fund.

In conducting these various legal endeavors to nullify the law, the shrimp-fishermen engaged six attorneys, representing some of the best legal talent of this State, and therefore necessarily costing them a large sum of money. On the other hand, our attorney, without any assistance, met them and succeeded in having the law upheld and declared to be constitutional, with the result that when the close season for shrimps came around again on May 1, 1902, the Chinese shrimp-fishermen put their boats and nets away, and did not again attempt to violate the law prescribing a close season for shrimps.

We feel that by thus being able to enforce this law, the catching, drying, and shipping to China of thousands of pounds of young fish has been prevented. We also think that this law should not be disturbed, because not a single citizen of our State has suffered by its operations. Not only has there been an ample supply of fresh shrimps for our markets, but millions of young fish have escaped destruction, and are thereby enabled to attain a marketable size, which contributes to the benefit of all our people and tends to destroy a Chinese monopoly. As every interest of the commonwealth relating to fisheries has been subserved, and only the export trade of the dried shrimp and small fish to China has been decreased by this law, we would most earnestly recommend that it be continued on our statute books indefinitely.

ABALONES.

The same section (Section 628, Penal Code, as amended in 1901) also made it a misdemeanor for any person, at any time, to catch, sell, or have in possession any abalone shells, or abalones, the shell of which shall measure less than fifteen inches around the outer edge. Japanese and Chinese are the principal divers for, and dealers in, abalones, and they operate mainly in Monterey, Santa Barbara, and other coast counties. This class of fishermen also attempted to nullify that law, claiming, as

in the shrimp case, that the abalone could not be included in a statute which referred only to the protection of fish; but in a test case in the Superior Court of Santa Barbara County, Judge W. S. Day decided that such contention was untenable, and upheld the constitutionality of the law.

CRABS.

The crab industry is an important one. During the past two years it has become apparent that the crab fishermen—who use gasoline boats in supplying our markets—have fished so extensively that we believe the time has arrived when additional restrictions are necessary.

There has been in force for four years a law prohibiting the capture and sale of the female crab. We had hoped this would be sufficient, but we find that it is not, as the supply is rapidly decreasing, especially in the vicinity of San Francisco. We believe there should be a close season, extending through the two principal months of their breeding season—September and October.

The supply of crabs here became so limited that the fishermen began to violate the only provision of the State law for their protection—the capture and sale of female crabs. The deputies of the Board arrested and prosecuted several violators of this law. Finally, two of the principal violators and dealers in female crabs were apprehended, and were tried in the San Francisco Police Court before Judge Conlan, who found them guilty and sentenced each man to pay a fine of \$100. These heavy sentences had a very salutary effect, as it made the crab fishermen cease to attempt to traffic further in female crabs.

At certain seasons of the year the local fishermen were unable to meet the demand, and the principal source of supply was Humboldt Bay. The Board of Supervisors of Humboldt County had to pass several ordinances to protect the crabs within their territory. As crabs do not bear transportation well, thousands were lost by delay in reaching the markets.

The intelligent fishermen recognize the growing scarcity of this shell fish, and have asked us repeatedly that a close season or some additional protection be accorded them, to prevent the industry from being ruined.

The number of crab fishermen has increased so that at present there are about one hundred and twenty boats, employing about two hundred and forty men, and paying about \$600 annually into the Fish Commission Fund. These fishermen obtain an average of \$1 a dozen for their crabs, which are retailed for about twenty-five cents apiece, so it can be readily seen what an important industry crab catching and marketing is.

As the shrimp open season begins on the 1st of September, the absence of crabs from the markets at that time will be scarcely noticeable by our people. If they are unmolested during their breeding season, we hope

they will become abundant again. We would therefore most respectfully recommend that Section 628 of the Penal Code be amended by prohibiting the possession and sale of crabs during the months of September and October, and by forbidding the possession and sale, at any time, of crabs measuring less than six inches across the back.

OYSTERS IN SAN FRANCISCO BAY.

Extracts from report of Charles H. Townsend, Assistant U. S. Commissioner of Fish and Fisheries, 1900.

Live Eastern oysters were first brought here by A. Booth, of Chicago, about the year 1870, when the first overland railroad was completed. Afterward, from time to time, others engaged in the introduction of Eastern oysters, and they eventually brought only supplies of seed oysters, which were bedded until they became marketable.

This industry has now reached large proportions. From 1887 to 1900 more than 11,000 tons of Eastern yearling seed oysters have been shipped to the bay of San Francisco and laid out for further growth. The time required for seed oysters to become marketable is from two to four years, according to the sizes demanded by Pacific Coast consumers. The beds of transplanted oysters occupy flats or tide lands and are exposed during the lowest tides. The areas where they are laid out are inclosed by fences of closely-set stakes, which lessen the action of the waves in these shallows and keep out stingrays and other marauders. The value of the mature oysters sold is considerably over \$500,000 a year, the quantity and value being on the increase.

An important fact in connection with the maturing of large quantities of Eastern oysters in the bay is the extensive degree of propagation that has been going on. The writer has investigated this subject several times during the past ten years, finding each time evidences of greater natural increase. For a number of years considerable quantities of oysters of volunteer growth have been picked at low tide from areas remote from the transplanted beds, and it has been ascertained that oystering of this character has been carried on without decreasing the supply.

Oyster spat from extensive planted beds along the west side of the bay drifts with the prevailing winds toward the east side, where a very considerable set takes places over an area more than twenty miles long. Here there are broad stretches of shell banks of the small, worthless native oyster of San Francisco Bay, upon the shells of which the young of the Eastern oyster find lodgment. The strong winds of midsummer create a heavy wave-wash over the reefs, drifting the light shells of the natives and burying many of the Eastern oysters growing among them. Fencing lessens the action of the waves and protects the interests of the owners. From a tract of one hundred and fifty acres in this section of

the bay, recently inclosed, over a million oysters were picked before any imported seed was laid out. It appears that the amount of spat set free from the transplanted beds is increasing, and the indications are that with the fencing-in and planting of the shell banks on the east side the increment from natural propagation will grow in importance.

Besides the transplanted oysters, there is a large business in the Pacific Coast native oyster (*Ostrea lurida*), which is a small oyster and abounds in San Francisco Bay.

SPINY LOBSTER OR CRAW-FISH.

At the last session of the Legislature, our recommendation that the code section relating to the catching or possession of craw-fish be amended so as to extend the close season, was favorably considered, and became a law. It is yet too soon after the passage of the act to determine the extent of the benefits to this industry. Giving, as it does, absolute protection to the craw-fish during their spawning period, there can be no question as to the wisdom of this law. The supply has been limited and the demand is increasing. We confidently expect an improvement in this growing industry under the present enactment.

SHAD.

The supply of shad continues in excess of the demand. They have so firmly established themselves in our waters that no legislation is necessary to protect them. They have spread from the bays, throughout the Sacramento and San Joaquin rivers, and the streams tributary thereto. Complaint is frequently made that the shad in our waters do not compare with the same fish in the Eastern States. With this statement we do not agree. The fish are in such abundance that proper care is not given them after their capture. In fact, this criticism might be applied to many others of our fish that are shipped in bags, thrown and tossed about, and left exposed to the sun, or in other unfit places, so that their better qualities must of necessity become impaired. Thousands of pounds of shad are taken by our farming population who live near the banks of the streams in the great valleys. Taken fresh from the water, and properly dressed, they are the equal of any shad in the world. The market fishermen are limited in their catch by the market-dealers, and even then the market is frequently overstocked. Shad are frequently retailed in our markets at five cents each, regardless of weight.

SEA-LIONS.

The action of this Commission in causing a reduction of the sea-lion herds, the killing of which was carried on for a few weeks in the spring of 1899, also in 1900, because of the inroads made on the supply of food

fishes, particularly salmon, has been the subject of more or less newspaper criticism. It arose chiefly from a groundless fear that one of the picturesque features of San Francisco, the Seal Rocks, would be destroyed. When our methods, scene of operations, and reasons therefor were made known, the criticisms quickly subsided.

Though no seals have been killed for more than two years, it is a fact that not since that time have they been seen in any numbers in the bays and rivers, and complaints about damage to nets and taking of fish have been very infrequent. On the other hand, there has been no apparent decrease in the numbers that frequent Seal Rocks, thereby sustaining the judgment of Dr. David Starr Jordan and Dr. Charles L. Gilbert, of Stanford University, who gave it as their opinion that the herds could be reduced two thirds before any effect would be noticed at Seal Rocks. To allay the fears of some of our people, this Board begs to say that no action will ever be taken by it that will tend to rob San Francisco of one of her most novel and original sights. In making this statement we do not wish to be understood as criticising the action of the preceding Board; on the contrary, it has our indorsement. Should it become apparent that the sea-lions have again increased to such numbers as to seriously menace the fishery interests and thereby a food-supply of thousands of our people—which is probable, as they have no market value, and are not to our knowledge hunted anywhere on this coast—the matter of reducing the herds may again be considered.

FISH-LADDERS.

In the past two years we have investigated a great many complaints regarding defective and inefficient fish-ladders, some of them being on the principal streams of the State. Many of the complaints arose through a lack of knowledge of the habits and movements of fish. All complaints made in good faith were investigated, and where, in our judgment, a fishway was necessary, or alterations were required, we caused them to be made. There are still a number of old fishways, constructed upon plans furnished many years ago. Experience has taught us much in regard to the manner of construction and location of fishways, and as fast as we are able to do so, and can give the work our personal attention, we are correcting the defects in the old ones.

The last session of the Legislature appropriated the sum of \$3,000 for the removal of obstructions in the Pitt River fishway. The appropriation not being available until January 1, 1902, no steps were taken (other than a survey being made, in November, 1901) until July of this year. The water being then at its lowest stage, we felt the work could be done at that time much more economically than to have attempted it during high water in the spring. We have since carried out the

terms of the act, to this extent: we advertised for bids for the building of this fishway and awarded the contract to the lowest bidders, Messrs. Keener & Brown, of Carbon, Shasta County. The work is now under way.

We have also taken up the subject of constructing a permanent and efficient fishway around the Folsom dam, so as to permit of the passage of salmon and shad to the headwaters of the American River. The construction of this fishway presents quite an engineering problem. We have taken up the matter jointly with the Sacramento Gas and Electric Railway Company, who are the owners of the dam, and with the Board of State Prison Directors, the Folsom State Prison being one of the users of the power furnished by this dam. Through the joint efforts of these beneficiaries, we hope to complete arrangements which will result in the construction of a permanent fishway, cut in the rocky wall on the north bank of the river.

SLAG.

Upon the recommendation of this Board, at the last session of the Legislature Section 635 of the Penal Code was amended to include the word "slag," thereby making it a misdemeanor to permit slag to pass into any of the waters of this State. This action was most important and timely, as the continuous passing of slag into the streams must of necessity destroy the spawning beds of the salmon, if not the mature fish themselves.

The principal cause for complaint arose from the passing of slag into the Sacramento River by the Mountain Copper Company at Keswick. There being no law to fit the case, this company could make whatever disposition of the refuse from its smelters that it saw fit. As there has been, in the past two or three years, a great revival of the copper industry in that portion of the State bordering on the upper Sacramento, it can be readily seen that without the present restrictions the results of the combined output of slag would, in a short time, have been disastrous, if not absolutely fatal, to the salmon industry.

As soon as legislative action had been taken on this subject, Mr. Alexander T. Vogelsang, the then President of this Board, took up the matter with General Manager Wright, of the Mountain Copper Company. Mr. Wright gave our request courteous and prompt attention, and immediately took steps to comply with the law. It being clearly evident that the radical changes necessary in their plant, involving the construction of an electric tramway and other expensive improvements, would require time, they were given six months in which to carry out the necessary work, which involved an outlay of probably \$30,000. In view of the great importance of the copper industry to Northern California, whose operations the Board did not desire to handicap, the

foregoing concession was granted. The Mountain Copper Company carried out in detail all our recommendations, and completed the work two weeks in advance of the time agreed upon, notwithstanding they were delayed in securing material, due to strikes in the iron trades. There is now no slag whatever passing into the Sacramento River.

STURGEON.

It was recommended in our last report that the law relating to sturgeon be amended so as to prohibit, for an indefinite period, the taking or having in possession of such fish at any time. This recommendation became a law. Consequently there have been no sturgeon for sale in the markets for upward of a year. We hope, however, as their increased numbers will permit, to have the present law modified so that a limited open season may be granted. The passing of this fish is a striking example of what unrestricted capture and destruction may mean to any of the food fishes of our waters. From being so plentiful as to have no market value, the sturgeon decreased in numbers, by reason of wasteful methods, until they became one of the highest priced fish, quite beyond the means of the masses. If these fish are allowed to increase, an industry of considerable importance may develop from the collection of sturgeon roe, which is manufactured into caviare. Inquiries from Eastern States have been made along these lines, and an offer of 12½ cents per pound made for the roe. As experiments in artificial propagation, which have been conducted in the United States, Germany, and Russia, have met with only moderate success, it would appear that the sturgeon can be restored only through natural increase. Therefore, we would recommend that the present law be maintained.

CATFISH.

The supply of these fine-flavored fish seems to be maintained, notwithstanding the demands are great. The sales in the San Francisco markets are considerable, but do not compare with those at Sacramento. This fish finds a ready sale throughout many of the neighboring States. It is shipped east to Kansas, south to Arizona, and north to Oregon. The principal supply comes from the waters in the vicinity of Sacramento. It is not uncommon for five tons of catfish to be handled in a single day in the city of Sacramento, from which an idea can be gained of the importance of this fish to the general food-supply. There are no restrictions governing the time of its capture. It has been claimed by some that catfish are a detriment to the other and more valuable fishes. This contention can not be sustained. Striped bass and shad continue to increase in the same waters that are most frequented by catfish and carp.

CARP.

The introduction of carp, which has often been criticised, has not been without great benefit to our State. It is an inferior food fish when compared with the great number of superior fish in our waters. Carp are found in all the markets, however, but are purchased principally by the Chinese. In the Eastern markets they frequently command a wholesale price of six to eight cents per pound, and find a ready sale. The same fish are highly prized in the markets of Europe.

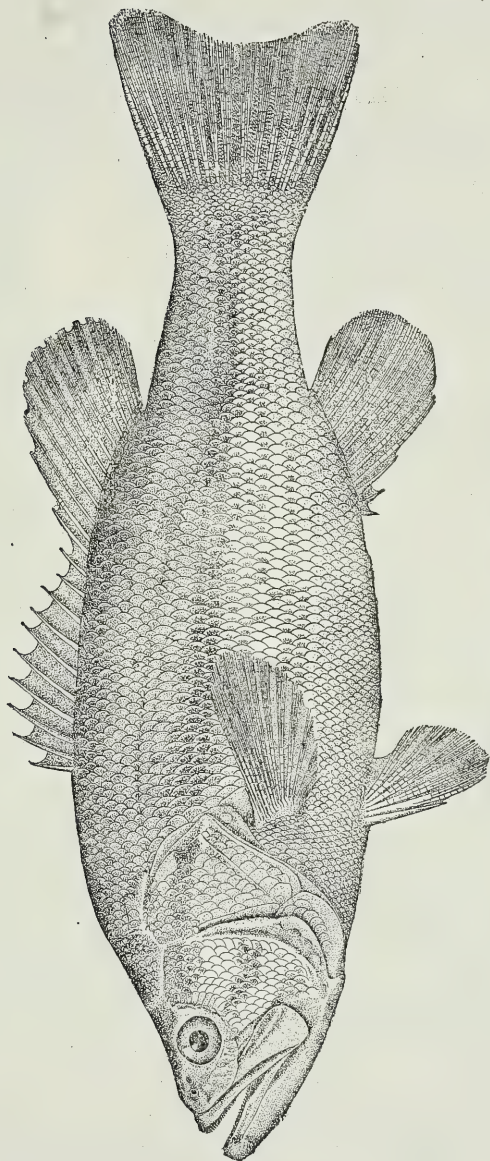
Their greatest value to this State lies in the fact that they furnish a food-supply to the black bass, striped bass, and possibly the shad. In our judgment, it is owing to the abundance of food-supply furnished by the carp, that other fish have become so abundant.

BLACK BASS.

In distributing black bass during the past two years we have confined our efforts to handling the large-mouth variety, and have drawn upon two lakes or reservoirs that were stocked with these fish in 1896-97. Our experience has shown that the large-mouth bass is much more suitable to the waters of this State than is the small-mouth variety. The latter, which are found in the colder waters of the Eastern States, will increase moderately well in the higher altitudes in this State, but not nearly so well in the lower altitudes where the water is warmer. There have been many new lakes, or reservoirs, formed by the various irrigating systems and power plants, and these afford a splendid breeding-ground and habitat for the large-mouth bass.

As distinguished from the small-mouth bass, they are found principally in the waters of the Southern States, and have increased in a remarkable ratio whenever planted in the reservoirs, lakes, or sloughs throughout the State, where the temperature of the water rises to a point that trout could not exist nor the small-mouth bass flourish therein.

Following the policy of the United States Fish Commission, which is not to plant black bass in waters adapted to trout, we have devoted our efforts in the past two years to stocking suitable waters of these lower elevations. The work has extended from Modoc and Siskiyou counties on the north to San Bernardino and Los Angeles counties on the south. We have placed one shipment in the Colorado River at The Needles, and made liberal assignments to the great interior valleys—the Sacramento and San Joaquin. Many of these lowland lakes and reservoirs abound in carp and catfish. These fish furnish an abundant food-supply for the bass, which soon gain the ascendancy in point of numbers. The Salt Spring Valley reservoir, in Calaveras County, six years ago contained



LARGE-MOUTH BLACK BASS—*Micropterus salmoides*.

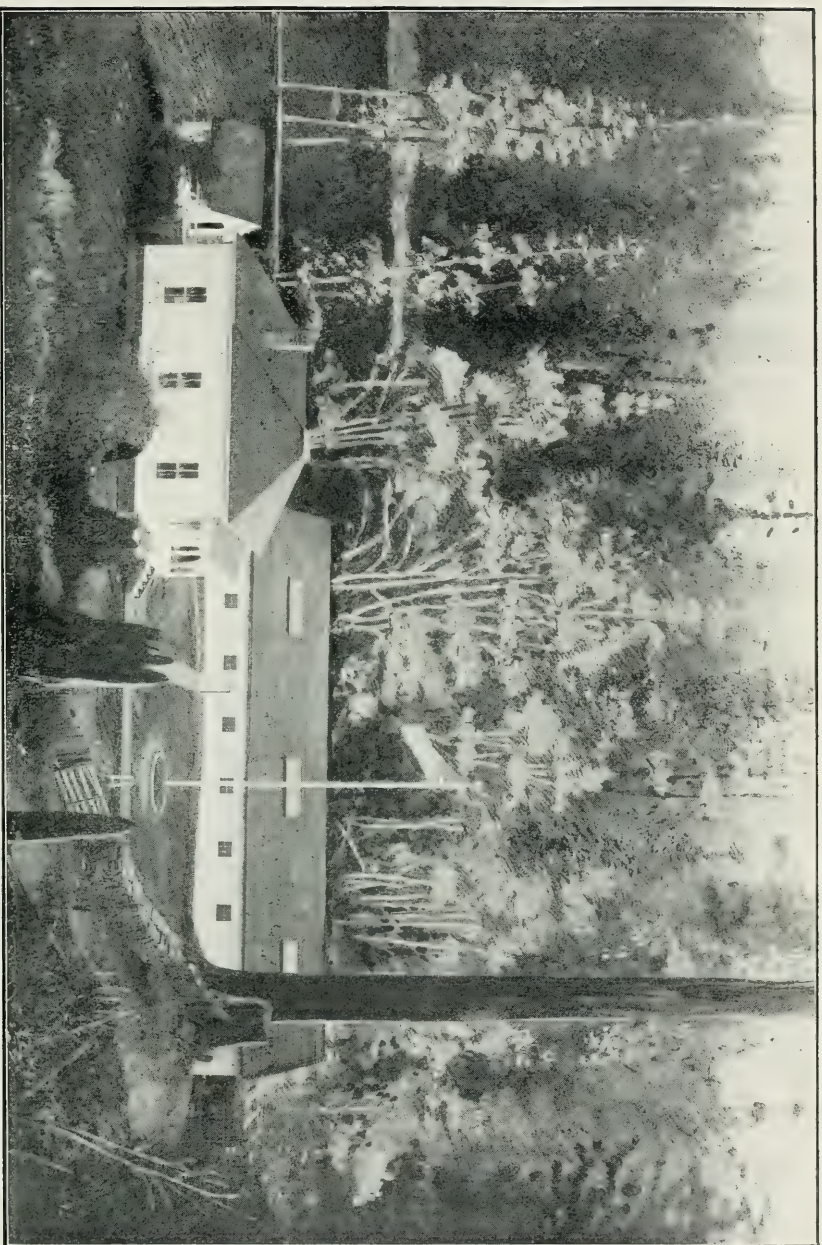
nothing but carp and catfish. To-day it is fairly alive with black bass. The fish for distribution during the summer of 1901 were all taken from this reservoir.

Learning that the bass had increased in a small lake or reservoir, known as the Daly pond, about seven miles from Folsom, in El Dorado County, we decided to operate from that point for the distribution during 1902, especially as it could be done more economically than from any other waters that had been stocked by this Commission. In June, 1897, there were placed in this small body of water 19 fish, averaging one pound in weight. During the past season two men in a boat have taken as high as 150 fish, ranging from five to twelve inches in length, in a single day, with hook and line. We planted no fish less than five inches in length and made plants varying from 50 to 100 of fish ranging from five to twelve inches.

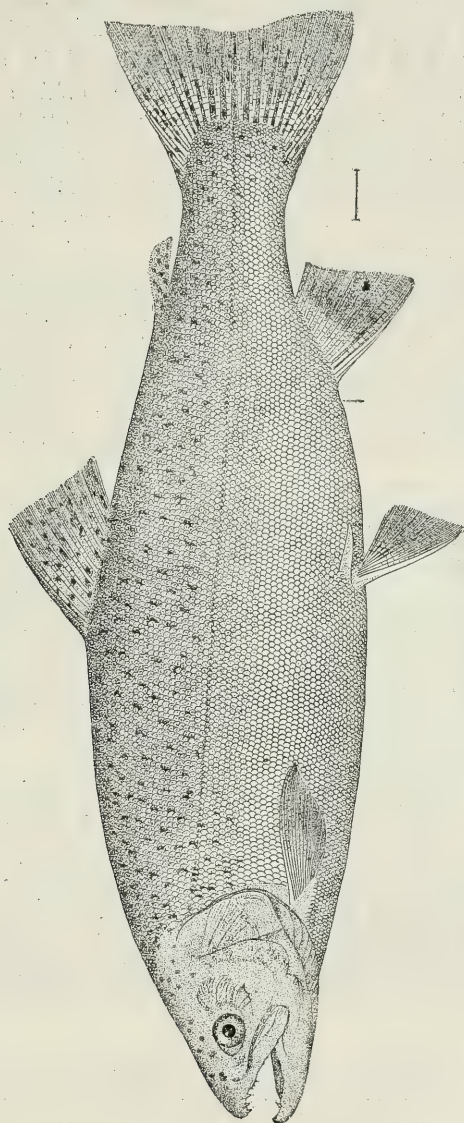
In the past season we have planted 2,750 large fish. The value and importance of this plant can be better appreciated when we recall the fact that less than 1,500 black bass were brought into this State from the East. We believe that within three years black bass, which is one of the most delicious of food fishes, will be found in every body of clear water throughout the Sacramento and San Joaquin valleys. Not only will they furnish sport, but also will supply food to thousands of our people who perhaps lack time and means to make expensive trips into the mountains for the purpose of taking trout; in other words, all such will have a new food-supply at their doors. The importance of this branch of our work is earnestly called to your attention. The increase of black bass means the decrease of carp and other fishes of less value, and the scope of this work could be greatly broadened with advantage to the whole State, did our means permit.

EEL RIVER STATION AND STEELHEAD PROPAGATION.

At the last session of the Legislature there was appropriated the sum of \$2,000 to be expended in the work of steelhead propagation. This was made available after January 1, 1902. After placing a dam, with proper racks and traps, on Price Creek, the work of collecting steelhead for propagation was undertaken by this Commission for the first time, commencing March 5, 1902, and continuing to May 17, 1902. Unusual freshets in the spring interfered materially with our take. A total of 342,000 steelhead eggs were collected. We had depended upon taking a large number of eggs by capturing, with a seine, the parent fish in Eel River. High water interfered with these operations, so that but few spawning fish were taken, as the principal run passed up the river while the flood was at its greatest. Four fifths of the eggs collected were taken on Price Creek. We have since prepared the necessary apparatus



EEL RIVER HATCHERY, HUMBOLDT COUNTY.



STEELHEAD TROUT—*Salmo gairdneri*.

to capture the parent fish in traps on Howe Creek, which is about half a mile distant from our hatchery. We will be able to operate these two egg-collecting stations—Price Creek and Howe Creek—with one crew. Should the stage of the water permit, when the main run is passing up Eel River, a seine can be used in that stream. We hope during the coming season to secure a large number of eggs, some of which will be shipped to Sisson and there hatched for distribution in the various coast streams. No effort was made to ship any of the first season's take. We had decided to liberate them all in the waters of Humboldt County. Shortly before the time set for liberation, a violent storm prostrated many of the large trees in that section. One of them, in its fall, carried with it our flume, cutting off our water-supply. This accident occurred during the night, but the superintendent in charge, W. O. Fassett, had taken the wise precaution of installing an electric alarm, which gave immediate notice of the accident, and afforded an opportunity to save the fish. It was impossible to repair the flume in time. The fry were therefore liberated in Eel River and Price Creek. All of the heavy timber in close proximity to the hatchery building or the flume has been since cut down, thereby removing all danger from that source.

The steelhead is the parent of all our coast stream trout, and is one of our valuable food fishes. It is becoming more and more popular in our markets, therefore we feel that steelhead propagation should become one of the features of our work. This branch of it could be carried on with very little additional appropriation. We have a suitable plant, comprising hatchery, flume, and a neat and comfortable cottage for the Superintendent. At the time steelhead eggs are taken the young salmon are nearly ready for liberation, and the station can be kept open at minimum expense to the State.

Owing to a limited take of salmon eggs during 1900, the expense of operating the station did not seem to be justified, therefore the report from this station is not as satisfactory as we could wish.

We have, however, maintained an efficient patrol of the principal fish streams and waters of Humboldt County for nine months of each year. This work has been most satisfactorily performed by Mr. W. P. Huestis, who has combined the work of patrolling with that of collecting licenses.

Summary of Distribution of Fish from Price Creek Hatchery during 1902.

Salmon.....	2,069,500
Steelhead	301,000
Total	2,370,500

COTTONWOOD CREEK STATION.

After a favorable report on the possibilities of taking Rainbow spawn from Cottonwood Creek, Siskiyou County, had been made by Mr. W. H. Shebley, Superintendent of Sisson Hatchery, in 1900, the Board issued instructions to secure the permission of Mr. David Horn, owner of the land on both sides of the creek, to trap the fish on his land, and to make the necessary preparations to that end, by constructing a temporary egg-collecting station. This having been done, in January, 1901, operations were commenced by putting in a rack and large trap; also fitting up troughs in a tent for the purpose of eyeing the eggs before shipment to Sisson.

Later it was learned that the water-supply taken from a spring, and to be used for eyeing the eggs, was alkaline in character. However, operations for collecting eggs were carried on, and as fast as taken they were shipped direct to Sisson, to be eyed and hatched. This proved to be both successful and economical, as the station required then only the services of one man to watch the traps, collect the spawn fish, and place them in a "live-box." Notwithstanding the fact that our trap was twice washed out by high water, we collected that season 417,000 eggs. This could hardly be considered a fair test of the capacity of the stream. The storms were unusually severe, and a warm rain on the deep snow-fall caused freshets.

In the spring of 1902 we again commenced operations at this station by putting in a trap on February 22d. The first eggs were taken this season on March 21st, and the last on May 26th. The first run was practically lost, as floods again washed out our trap, and the water continued high until March 4th, during which time the fish passed on up the stream. In spite of these drawbacks we secured 269,000 fine Rainbow eggs, making a total of 686,000 eggs secured at this station. The eggs having been collected so cheaply, we consider that our efforts and money have been well expended. We shall continue to operate this station, and perhaps discontinue the one on Shovel Creek, owing to the greater expense of operating, which is not justified by the output.

For the privilege of operating on his property and for courtesies extended to the employés of this Commission, we extend our thanks to Mr. Horn.

SHOVEL CREEK STATION.

This station was operated during the early spring months of 1901 and 1902 for the collection of Rainbow trout eggs. In 1901 we secured 387,000 eggs, and 401,000 in 1902, or a total of 788,000 in the two seasons. These eggs were shipped to and hatched at the Sisson hatch-

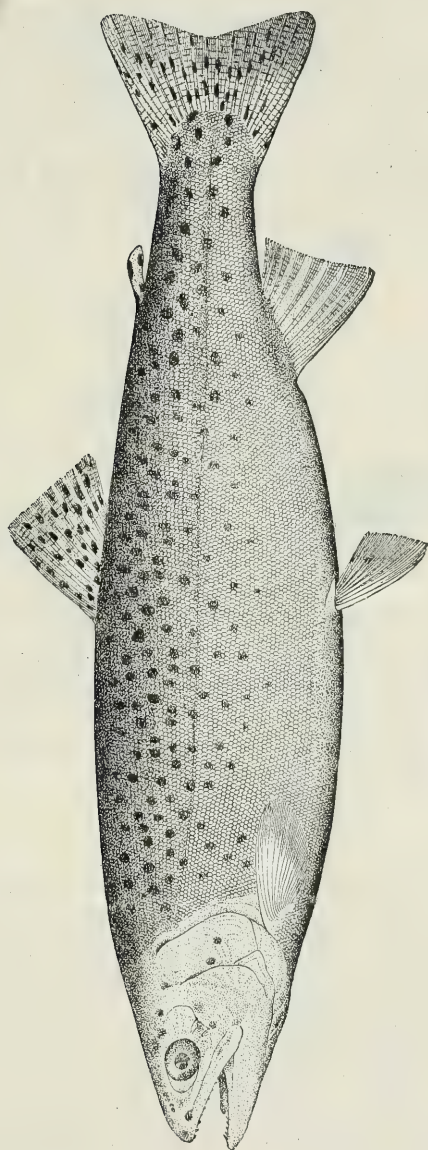
ery, less 50,000, hatched and liberated at Shovel Creek. This Board acknowledges its obligations to Messrs. Edson Brothers for the free use of their grounds, and for courtesies and assistance extended to our employés.

TAHOE AND TALLAC HATCHERIES.

These stations were operated during the past two years as usual. They continue to furnish an unfailing supply of Cut-throat (Mykiss) trout eggs. The mouth of Taylor Creek, near Tallac, continues to be our principal spawn-taking station. The timely action of the Boards of Supervisors of El Dorado and Placer counties, extending the close season in the Tahoe region until June 1st, has been of great benefit to the fishery interests of that section. Thousands of spawn-bearing fish that heretofore were taken, between the 1st of April and the 1st of June, by market fishermen and shipped to dealers in San Francisco, caused the loss of millions of eggs. This waste has been met by the passage of the county ordinances referred to. If other mountain counties would follow the wise example set by Placer and El Dorado counties, the supply of fish in all the higher altitudes would be greatly increased. From the eggs collected at Taylor Creek we have supplied our Sisson hatchery and the Wawona hatchery; and our surplus beyond the hatchery capacity on the lakes was delivered to the Ukiah hatchery, operated by the California Northwestern Railway, under the able supervision of Mr. Alfred V. La Motte. The fry hatched at Ukiah were distributed throughout the streams of Mendocino, Sonoma, and Lake counties.

We have improved the water-supply of the Tallac hatchery by putting in an auxiliary flume and tapping a new spring, from which an abundance of pure water, free from sediment, is taken and used during the "tender period" of the eggs. At Tahoe City we have also added to and improved the water supply of that station. We have now sufficient to run both hatcheries to their fullest capacity.

The egg-collecting work on the lake has been under the general supervision of Mr. E. W. Hunt, an able and experienced fish culturist. When the capacity of our stations had been reached and the demand for the Mykiss eggs in other parts of the State had been supplied, Mr. E. W. Hunt assumed charge of the Tahoe City hatchery and Mr. W. B. Hunt of the Tallac hatchery. From both these stations Mykiss fry were carried on pack animals to stock a number of barren lakes in the higher ranges surrounding Lake Tahoe. In the distribution from Tallac station, we were ably assisted by Prof. W. W. Price, of Alta. Professor Price, and a class of young men from his school, spent a good part of their vacation in this most strenuous work, contributing their services for the good of the State. Independence Lake, Donner Lake,



CUT-THROAT, OR TAHOE, TROUT—*Salmo mykiss*.

and a number of lakes in the high Sierras around Cisco and the Summit, were also stocked with fry from these hatcheries.

During the seining operations for spawn fish, a number of large Mackinaw trout were taken, showing that the plants of these highly desirable fish have been successful. All that were captured in our net were returned alive to the water, except one specimen sent to our office.

The State property on which the Tahoe station is located should be properly fenced, the buildings repaired and repainted, and other necessary improvements made.

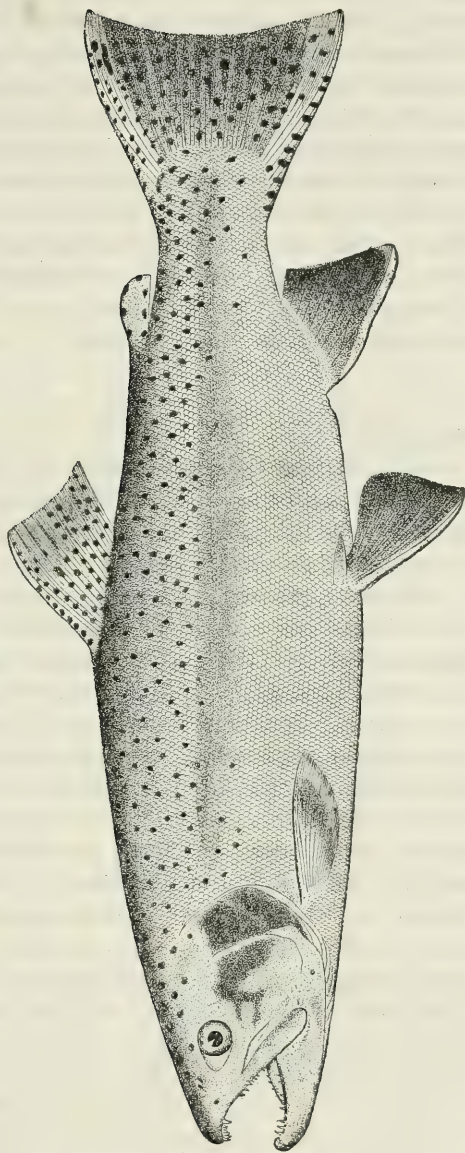
The complete distribution of eggs and fish from Tallac and Tahoe stations during 1901 and 1902 are summarized in the following tables:

		Mykiss.		Rainbow.	
		Fry.	Eggs.	Fry.	Eggs.
<i>Tahoe Station.</i>					
1901.....		923,000	400,000	82,000	.....
1902.....		877,000	600,000	118,750	25,000
		1,800,000	1,000,000	200,750	25,000
<i>Tallac Station.</i>					
1901.....		952,430	.....	.....	.....
1902.....		890,000	764,000	23,800	.....
		1,842,430	764,000	23,800	.....

We have maintained a patrol throughout the summer months on the streams tributary to Lake Tahoe, and stopped the destructive practices of the Nevada Indians. This patrol has been efficient so far as one man can control and cover large territory. It would be good policy to use a man for each side of the lake, and we regret that our means do not permit us to do so.

VERDI STATION.

Operations for the taking of trout spawn commenced in February, 1901, at this station, which resulted in a collection of 654,000 Rainbow trout eggs and 274,000 Mykiss. The eggs were distributed between Tahoe, Sisson, and Wawona hatcheries; less ten per cent of the output, liberated as swimming fry in the Truckee River, in accordance with the agreement entered into between this Board and the County Commissioners of Washoe County, Nevada, in consideration of the privilege granted to us. No work was carried on at this station by this Commission during the spring of 1902; but having an opportunity to purchase 400,000 first-class Rainbow eggs that had been collected and eyed by Mr. J. P. Morrill of Verdi (an experienced man), for a sum that was considerably less than it would have cost us to take them, we concluded a bargain with Mr. Morrill. The result fully justified the purchase.



RAINBOW TROUT, ADULT MALE—*Salmo irideus*.

Believing, however, that Verdi will prove one of the most reliable stations for the collection of Rainbow trout eggs, and finding a new water-supply not over three fourths of a mile from the Essex dam, with an ideal site for a hatchery, which could be located one half mile within the boundary line of California, we again addressed the Nevada authorities with a view of securing the privilege of taking spawn from the Truckee River in Nevada for a term of years. We are pleased to report that we have secured the privilege for three years, also a free lease of land from George H. and W. C. Foulks, for the erection of a suitable building of larger capacity than the former one, and have also secured from John W. Hill a three years' agreement for the sole use of the water of Laughton Creek, on which the hatchery will be located. The preliminary steps have all been taken. We believe that by operating this station we will be able to cut out two of the other stations where the total take of eggs will not equal the Verdi output.

WAWONA HATCHERY.

This hatchery, located in the Yosemite National Park, has been operated during the past two years in the spring and early summer months. The eggs were collected and shipped from Lake Tahoe, from the Truckee River, and also from the Klamath. Both seasons were successful. Seven hundred and fifty thousand fry, about equally divided between the Rainbow and Cut-throat, were planted in lakes and streams of the Yosemite region. Our work has been greatly facilitated by officers of the regular army, who have been detailed with troops of cavalry to maintain patrol throughout the park. They have freely given us the use of pack animals to carry fish over mountain trails to points otherwise inaccessible. To Major L. A. Craig and Captain H. C. Benson are due the thanks of this Commission on behalf of the people of the State. Without their efforts and those of other officers in the past, many streams and lakes that are now teeming with fish would have continued barren, as they had been for generations. The main streams of Yosemite Valley are now well stocked. There being practically no market fishing, and the only tax upon the streams being made by campers and tourists, the supply is easily maintained.

Summary of Distribution from Wawona, 1901-1902.

	Rainbow Fry.	Mykiss Fry.
1901	185,000	187,000
1902	145,000	185,000
Total	330,000	372,000

The owners of this hatchery are the Messrs. Washburn brothers, of Wawona, to whom we are much indebted for assistance in the way of free transportation for our employés and deputies, both in and out of the park, and for the free use of teams for making the distribution through the valley proper.

When referring to Wawona and fish propagation in the Yosemite Park waters, we feel the subject will be left incomplete without paying special tribute to Captain Harry C. Benson, Fourth United States Cavalry, who has given more time and individual effort toward making this wonderful region what it really is—a sportsman's paradise—than any other person. Captain Benson has spared neither time nor money in this work; in fact, he has made it a labor of love, devoting all his energies to the work whenever the opportunity presented, either when detailed with his troop to patrol the park, or when on furlough. He has made requisition for our pack cans, for seines, in fact for all the necessary appliances to successfully capture and transport fish from streams that are full to those which never carried fish life until placed there by him. His work has been so skillfully and intelligently done, his energy so tireless, and his achievements so marked, that in our opinion the value of his work should be known to all our people.

We can refer most gratefully to the efforts of nearly every officer of the regular army, who has been stationed in Yosemite Park, for invaluable assistance given to our work.

We desire at this time to refer to another officer of the regular army, Captain Frank A. Barton, Third United States Cavalry, who has also rendered the State great service in the Sequoia and General Grant National Parks, by strictly enforcing all the State laws, as well as the United States laws, relating to fish and game. He has been fearless and relentless in his pursuit of violators. To many he has taught a lesson that was greatly needed. Under his eye these laws were rigidly enforced and put into practice. His services in these parks during the summer of 1902 should not be forgotten. His efforts were ably supported by Lieutenant Camby.

DISPOSITION OF ILLEGALLY-USED FISHING GEAR.

Before the session of the Legislature in 1901, there was no provision of law for the disposition of fish nets taken from violators of the fish laws, as the Supreme Court of this State, in the case of Ieck vs. Anderson, 57 Cal. 251, held that a law providing for the destruction of such nets, without court proceedings, was unconstitutional, because it was taking property without due process of law, although a similar law in New York was held constitutional by the New York Court of Appeals and the United States Supreme Court; but our Supreme Court having

held otherwise, we had to provide a way to meet the situation. Therefore, this Commission presented a bill to the last Legislature, which was enacted and became known as Section 636a of the Penal Code. This section declared that any net for catching fish, which should be used contrary to law, was a public nuisance, and provided for its seizure, and the instituting of proceedings, in the Superior Court of the county where the net was seized, for its forfeiture, condemnation, and destruction.

This law has proved to be a great aid in preserving fish from unlawful capture. In Russian River, Noyo River, Ten-Mile River, and in the San Luis Creek, set-nets are used to catch steelhead trout, the owners leaving them set in the streams, and later overhauling them. About twenty-five nets were seized, by the deputies of this Board, in these streams since the law went into effect, and, under proceedings instituted by this Board, in the proper courts, have been ordered forfeited and destroyed. The average value of the nets thus used is \$50, and the minimum fine, fixed by Section 636 of the Penal Code, for using nets as these are used, is \$100, so by Section 636a an unknown owner and user of such a net is punished and penalized by making him lose about \$50, the value of the net, which is destroyed, so that it can not be used unlawfully again.

In Suisun Bay and Carquinez Straits, where salmon are caught, ten large salmon nets have been seized by the deputies of this Board; proceedings were instituted by this Board in the proper Superior Courts, and the nets have been ordered forfeited and destroyed. The nets were seized because they were being drifted for salmon, between sunrise of Saturday and sunset of the following Sunday, contrary to the provisions of Section 634 of the Penal Code, for the protection of salmon. The minimum fine for such offense is \$200, and the average value of the nets thus unlawfully used is about \$150 each.

Some people have suggested that the law should provide that the nets should be sold and the proceeds paid into the Fish Commission Fund. The objection to this procedure is that it would permit the real owner (who would be unknown to the Commission) to bid in his net at any figure, and thus avoid arrest and punishment as provided under Sections 634 and 636 of the Penal Code. Under the law as it is, if any one claims the net in the condemnation proceeding, his identity is at once established, and he can be immediately arrested and proceeded against under the penal sections. The result is that no claimant ever appears, but the owner is, nevertheless, penalized by the loss of his net, and the Commission has succeeded in destroying an unlawful means of catching the fish. Therefore, we believe that the law has proven a great aid and benefit to the Commission in protecting the fish, and it should not be altered in any particular.

THE TROUT LAW.

The change made by the last Legislature in amending Section 632 of the Penal Code, as to the sale of trout, has proven to be a wise one. The old law prohibited the sale of any trout of less than six inches in length, whereas the present law prohibits the sale of any trout of less than one half pound in weight. The Board has prosecuted several violators of this law who were catching trout on the Sacramento River, the Truckee River, and Independence Lake, and has succeeded in having them convicted and causing them to pay the fines imposed.

The practical result of the law making the weight, instead of the length, the measure of sale, is that there are greater numbers of large trout to be caught by the anglers, and also to be supplied to the markets for sale, and we recommend that the law should not be changed.

PERMITS FOR TRAPPING AND TRANSPORTING GAME.

Prior to the last session of the Legislature the power of granting permission to trap quail, etc., for scientific purposes and for the purpose of propagation, was vested in the county game wardens, but they had no authority to issue permits for transportation after the birds were trapped. The Board of Fish Commissioners had the power to permit such transportation, but had no authority to permit the trapping. Under these conditions there was often great confusion, because many counties had no game wardens, and therefore in many instances it was impossible to allow the taking of such birds. In order to make this matter uniform, Sections 627*a* and 631 of the Penal Code were amended so that the entire subject-matter of permits, both as to trapping and transporting, was vested in the Board of Fish Commissioners, and it has proven to be a wise and necessary change.

GAME WARDENS.

The necessity for, and the wisdom of having a game warden in each county has been referred to at greater or less extent in each biennial report of this Commission. It seems strange that so many counties are slow to appreciate the advantages and benefits that would come from having an energetic, competent, local officer to look after their game and fish interests; one to whom all complaints could be referred, and who would always be in touch with the State office. Wherever public sentiment is strong enough to indorse and support a game warden, we can with safety stock the streams with fish, and at the same time feel that the State's money is not wasted. Therefore, those counties having game wardens have been most favored.

One reason why the office of county game warden has to a certain extent fallen in public favor, is because political influence, rather than the fitness of the individual, often enters into the matter, resulting sometimes in the selection of a lukewarm official, who lacks knowledge as to proper procedure, who knows nothing of the habits of either fish or game, or where they may be found, or when their breeding seasons, and who is usually content with making his monthly "raid" on the County Treasury. Wherever a fearless, energetic officer, who does his full duty, is to be found, there do we find the man and the office respected; there the laws are obeyed. This Commission has had valuable assistance during the past two years from such officers.

We have gone as far as our means will permit in sending our regular deputies into distant sections of the State, but we are unable to keep them there for more than a few days at a time. To meet the situation as best we could we have continued to appoint, as deputies of this Board, men who are indorsed by the Superior Judge of the county in which the applicant resides, allowing them \$25 for each case prosecuted, regardless of conviction being obtained, after being satisfied the evidence warranted the arrest. Some of these appointees have done splendid work and assisted us materially in securing evidence, etc. But this makes a drain on our resources, as many cases are expensive to prosecute and fines are not always paid. If counties can not afford a game warden they ought to bear the very small additional expense entailed by an increase in our appropriation for the restoration and preservation of game, which would enable us to pay outside deputies the full value of their services, when cases are made, and also to continue a good, energetic officer for a longer time in the field.

MONGOLIAN PHEASANTS.

Since the last report of this Commission was submitted to you we have received reports from the various sections in which these splendid game birds were liberated. In some counties they have increased, especially where the sentiment of protection is developed to the extent of having a county game warden. Santa Clara County probably stands at the head of the list. On the Morrow ranch, near San José, the birds have increased until they number about one thousand. Favorable reports come from Fresno, Humboldt, and Santa Cruz counties. Occasionally the pheasants are seen in Santa Barbara and San Luis Obispo counties. A limited number of birds were brought from Hongkong, China, about two years ago. We were able to purchase them for seventy-five cents each, and through the courtesy of the Pacific Mail Steamship Company and the United States custom officials, landed them at San Francisco without additional expense. They were liber-

ated in such sections as seemed best adapted to their needs. From the results of the plants already made, we may determine if further experiments would be warranted.

RECOMMENDATIONS.

The recommendations which we consider of most vital interest to the people of the State of California concern the amount of the appropriations to be made with which to carry on the work of this Commission. We believe that a careful perusal of the foregoing report will show how absolutely necessary it is that the appropriations be increased in the various funds, as follows:

We earnestly recommend that the fund for the restoration and preservation of fish be increased \$5,000, or \$2,500 per year. Four years ago, to meet the necessities for a general reduction, caused by a series of dry years, it was reduced. We believe the Legislature will gladly restore it.

We urgently recommend that the appropriation for the support and maintenance of hatcheries be increased by the same amount; in other words, from \$10,000 to \$12,500 per year. The reasons therefor have been set forth in the preceding pages, and we believe they are sufficiently sound to meet the favorable judgment of the Legislature.

In asking for an increased appropriation for the restoration and preservation of our game, we feel that it has been clearly shown why the present appropriation is totally inadequate. The great State of California is only paying \$3,750 per year for the restoration and preservation of its game—a resource that can not be properly estimated in dollars and cents alone. Other States have long since recognized its value, while California, the second largest State in the Union, with a greater variety of game, perhaps, than any other State, is almost last on the list in the scale of appropriations. Michigan, with 100,000 square miles less in area than California, expends \$16,000 per year. New York appropriates about \$30,000 per year. Wisconsin appropriates \$70,000 per year, although this includes both fish and game interests. We ask for only \$7,500 per year, or an appropriation of \$15,000 for two years.

The total requested increase, in all our funds, amounts to \$12,500 per year, less \$1,000, heretofore appropriated for payment of costs and expenses of prosecutions, which appropriation will be unnecessary, if other recommendations relating to the payments of fines be followed, leaving, therefore, a total asked-for increase of \$11,500.

Many counties of the State would feel the burden of supporting a county game warden. The slight increase that this additional tax would impose on the General Fund would be gladly met, we believe, by all the people of the State, knowing that it would then enable us to give these interests the attention their importance deserves.

We recommend the following amendments to the fish laws:

Amend the Act of April 16, 1880, to provide for the construction, maintenance, and regulation of fishways in streams naturally frequented by salmon and other migratory fish, so as to make a violation thereof punishable by a fine of not less than \$100, or by imprisonment not less than fifty days, or by both, and that the fines be paid into the State Treasury to the credit of the Fish Commission Fund.

Amend an Act approved February 28, 1887, concerning the expenses and costs of trials for violations of fish laws, so that such costs shall be approved by the Board of Fish Commissioners before payment.

Amend Section 628 of the Penal Code, in relation to striped bass, by eliminating the close season, and fixing the limit of weight for catching and having in possession at three pounds.

Amend Section 628 of the Penal Code, in relation to crabs, by making it a misdemeanor for any person, between the first day of September and the first day of November of each year, to catch or have in possession any crabs, or at any time to have any female crabs, or any crabs which do not measure at least six inches across the back.

Amend Section 629 of the Penal Code, relating to screens for ditches, etc., so that a violation thereof shall be a misdemeanor, punishable by a fine not less than \$20, or by imprisonment not less than ten days, or by both, and that the fines shall be paid into the State Treasury to the credit of the Fish Commission Fund.

Amend Section 632 of the Penal Code, in relation to steelhead trout (*Salmo gairdneri*), so that it shall be a misdemeanor to have any steelhead trout in possession between the 10th day of September and the 16th day of October of each year.

Amend Section 635 of the Penal Code, in relation to explosives, etc., so that a violation thereof shall be a misdemeanor, punishable by a fine of not less than \$250, or by imprisonment of not less than one hundred and twenty-five days, or by both, and that the fines shall be paid into the State Treasury to the credit of the Fish Commission Fund.

Amend Section 637 of the Penal Code, in relation to fishways, so that a violation thereof shall be a misdemeanor, punishable by a fine of not less than \$100, or by imprisonment not less than fifty days, or by both, and that the fines shall be paid into the State Treasury to the credit of the Fish Commission Fund.

ACKNOWLEDGMENTS.

To you, officially and personally, we desire to express our appreciation of the great service you have rendered the fish and game interests of the State. In the face of the most powerful opposition you signed and gave to the State the fairest and most equitable game laws it has ever

had. All our requests and recommendations have met with courteous and early recognition, for which we thank you.

The Commission acknowledges its gratitude to the following railway and transportation companies for the free transportation of all our employés, apparatus, eggs, and fish. Without their assistance our efforts would have been restricted to very narrow limits, and could not have been given for the benefit of the whole State:

To the Southern Pacific Company, Santa Fé System, Sierra Railway Company, California Northwestern Railway Company, North Pacific Coast Railway Company, Lake Tahoe Railway and Transportation Company, Nevada-California-Oregon Railway Company, Boca and Loyalton Railway Company, we are much indebted.

To the Pacific Coast Steamship Company, for the free transportation of salmon eggs from San Francisco to Humboldt County, we extend our thanks.

To Mr. A. Christeson, General Manager of Wells, Fargo & Co., Mr. J. C. Tice, depot agent at the ferry, and all the superintendents, agents, and employés of their company, we are specially indebted for many privileges and most courteous treatment. No reasonable request has failed to receive attention, and in many cases voluntary assistance that was of great value to our work has been freely given the deputies of this Board.

To all employés of the Southern Pacific Company, with whom our deputies or officers have come in contact, we are grateful for assistance rendered our men when moving fish, eggs, or other materials used in our work.

To the various fish and game protective associations that are in existence throughout the State, we are under obligations, not only for assistance rendered our deputies, but for the upbuilding of public sentiment, which has been such an important factor in sustaining the present game laws.

For substantial assistance in the form of free transportation for all of our men, the eggs and the fry, and for other courtesies, our thanks are extended to Mr. D. L. Bliss, Jr., Superintendent of the Lake Tahoe Railway and Transportation Company.

To Messrs. Lawrence and Comstock, of Tallac, we are again indebted for free use of teams for hauling fish, eggs, and supplies, and for many privileges. Without the assistance rendered from these gentlemen at Tahoe and Tallac, respectively, our operations would be seriously handicapped.

During the past two years all the salmon eggs hatched at our stations have been furnished to us free of charge by the United States Commission of Fish and Fisheries. Our operations have been assisted in every way consistent by the experienced men of the National Commission.

Our thanks are extended to Hon. George M. Bowers, U. S. Commissioner of Fish and Fisheries; also to his able assistants in Washington, W. de C. Ravenal and John W. Titcomb; also to Captain G. H. Lambson, Superintendent of Baird Station, and Mr. Leroy Ledgerwood.

For much valuable information regarding the movements of young salmon, we gratefully acknowledge our obligations to Mr. Cloudsley Rutter, and commend to your careful perusal his article on "Studies in the Natural History of the Sacramento Salmon," to be found in the Appendix.

In submitting this report of the work done in the past two years, permit us to say that we feel satisfied with the record, and believe that it will meet with the approval of yourself and of all fair-minded citizens. We trust the incoming Legislature will give careful consideration to our recommendations, to the end that increased appropriations will better enable us to carry out the high purposes for which this Commission was created.

Yours respectfully,

H. W. KELLER,
W. W. VAN ARSDALE,
W. E. GERBER,
Commissioners.

SAN FRANCISCO, CAL., September, 1902.

APPENDIX

TO THE

SEVENTEENTH BIENNIAL REPORT

OF THE

BOARD OF FISH COMMISSIONERS,

1901-1902.

1. Litigation arising from Enforcement of the Game Laws, and Decisions of the Superior Courts relating thereto.
 2. Damage Suit, and Suit for Injunction.
 3. Decision of the Supreme Court, Ex parte S. Kenneke on Habeas Corpus. (Quail case.)
 4. Equity of the Game Laws. (By "a convert.")
 5. Studies in the Natural History of the Sacramento Salmon. By Cloudsley Rutter, Assistant U. S. Fish Commission.
-

ENFORCEMENT OF THE NEW GAME LAWS.

The Board, at the time of its last report, was enforcing the provisions of the law for the protection of game as it then existed, but it was apparent, at that time, that new game laws, which would afford more protection, were needed, as the supply of game was being depleted very rapidly. Therefore, when the Legislature met in 1901, it passed a new Act with many new and necessary provisions for the protection and preservation of game, some of which seemed very radical to some of the people of this State, although almost every other State and Territory had already found it necessary to place such restrictions upon the capture and disposition of wild game. The provisions principally criticised were commonly known as the "non-sale law of quail, etc.," and the "bag-limit on ducks, quail, deer, etc."

It became apparent, as soon as the new law went into effect, that certain parties, who desired to financially profit by an unlimited and indiscriminate slaughter of the wild game of the State, intended to violate the law, and would endeavor to have courts and juries nullify it. Therefore, this Board at once commenced a campaign of education throughout the State to let the people understand how and why a provision of the law which prohibited any one person from having more than fifty ducks, etc., would and could prevent the undue depletion of such game, and how and why a provision of law which prohibited the sale of quail, deer meat, etc., would and could protect such game, because there would be no inducement to kill for the purpose of being financially benefited. These ideas were promulgated in the State through the agency of the press, by having articles published showing the necessity for the existence and the enforcement of such laws, and also by having local sentiment aroused by the formation of game and fish protective associations in different parts of the State. We have endeavored, with a great amount of success, to have our judges, justices of the peace, jurors, and citizens generally, understand that the wild game of the State belongs to the people of the State in their collective sovereign capacity; and that it is not the subject of private ownership, except in so far as the people, by the Legislature, elect to make it so, and that any person who kills or takes any of the wild game of the State, in violation of the provisions of law, really commits larceny, because he or she robs the State of its property. It has been a strenuous task to get these principles inculcated in the minds of a sufficient number of our people to be efficacious; but we feel, now that the Supreme Court of the

State has affirmed and approved the doctrines and principles contended for by this Board, and held that the law in question is constitutional and is in no way class legislation, that our efforts have been rewarded, and that by continuing in the same way for some time longer, with the present law, that the community at large will awaken as a whole to the realization that these provisions of the law were enacted and are enforced for the protection and preservation of the wild game, as a benefit to every one.

As soon as the open season for doves arrived in August, 1901, this Board was notified by one John F. Corriea, who is a commission merchant, and who was acting on behalf of other pecuniarily interested individuals, that he intended to violate that part of the law which made it a misdemeanor for any person, during one calendar day, to have in his possession more than fifty doves, and then to attack in court the constitutionality of that section, viz., 626*d* of the Penal Code, which fixes a limit upon the number of quail, partridge, snipe, doves, ducks, and rail which one person can kill or possess during one calendar day. Acting upon such notification, Corriea, who did exceed the limit for doves provided by law, was arrested by one of our deputies, and brought before Judge George H. Cabaniss, of the San Francisco Police Court. He employed an attorney, who agreed to defend a certain number of violators for a stipulated price. In short order Judge Cabaniss found Corriea "guilty," and sentenced him to pay the minimum fine of \$25; thereupon he appealed his case to the Superior Court, and the judgment was there affirmed. This attorney then applied to the Supreme Court for relief by a petition for a writ of habeas corpus, enumerating the entire category of usual objections made when the constitutionality of a law is attacked, but the Supreme Court was so well satisfied with the constitutionality of the law that it simply refused to issue any writ, without giving any reasons for holding the law valid and constitutional. Thereupon application was made to Judge De Haven, of the United States District Court for the Northern District of California, for a writ of habeas corpus, but he also denied Corriea's petition, and in an oral decision informed him that the law in question was not objectionable to any provision of either the State or Federal Constitution, and so Corriea had to pay his fine. But still he was not satisfied, and his abettors continued to be arrested for violations of the bag-limit law as to quail and ducks. In some cases appeals were taken to the Superior Court, but Judges Carroll Cook, William P. Lawlor, and Frank H. Dunne, who determine appeals in criminal cases in the San Francisco Superior Court, affirmed the judgments of the lower court, and upheld the law. The results were that the attorney earned his fee, all the violators had to pay their fines, the "common or litigation fund" was exhausted, and the State game preservation fund enriched thereby.

DAMAGE SUIT, AND SUIT FOR INJUNCTION.

Soon after October 1, 1901, the opening of the quail and duck season, this Board became cognizant of the fact that quail and duck hunters were evading the law by using fictitious names in shipping ducks and quail in concealed packages, like butter boxes, trunks, etc., or marked as poultry, or some other article for the market. Thereupon deputies were detailed to examine all Wells, Fargo & Co. express matter coming to San Francisco, and to seize any quail, duck, or other game shipped in violation of the law. The result was that an immense amount of game was seized. Deputies were also sent to the various counties from which the quail were being shipped. These deputies swore to complaints charging certain persons with offering quail for sale, warrants were issued thereon, and the hunters were arrested, convicted, and paid their fines. In a number of cases these hunters gave to our deputies the letters which had been sent to them by game-dealers in San Francisco, informing them how to traffic with them in unlawful game, and disclosing a well-laid plan and conspiracy to evade the law. So effective were the measures taken by this Board to keep out the prohibited game, that the "game-dealers' combination" soon realized that we had stopped their supply. A consultation of war, so to speak, was called by them, and they employed a well-known firm of attorneys to try to obtain some relief for them.

Accordingly, on October 30, 1901, two suits were filed in the Superior Court of San Francisco by one L. Duprat against this Board and its deputies. One case was entitled "Duprat vs. Board of Fish Commissioners et al.," and was a suit in trover to recover the sum of \$505, alleged as damages for the unlawful taking of twenty-five quail by this Board and its deputies, on October 20, 1901, from Wells, Fargo & Co. as plaintiff's agent. The other case was entitled "L. Duprat (on behalf of himself and all others having a common interest in this suit) vs. The Board of Fish Commissioners et al.," and was a suit for an injunction to restrain the Commissioners and their deputies from examining and seizing quail and ducks being shipped into San Francisco by Wells, Fargo & Co.

Both of these cases came up before Judge James M. Seawell for hearing, and he sustained a demurrer interposed by the Commission and dismissed the damage suit. In the injunction suit a demurrer was

interposed and affidavits were filed on behalf of the Board, showing that under our law an injunction will not lie to prevent the execution of a penal statute, and showing that our deputies, in making the seizures complained of, were obtaining and taking evidence being used in the commission of an offense. These affidavits, which were used upon the hearing of the application for an injunction, showed the combination of the game-dealers to evade the game laws. After listening to oral arguments and considering printed briefs on behalf of both sides, Judge Seawell rendered an oral decision, sustaining the demurrer of this Board to Duprat's complaint. He refused to issue an injunction, and dismissed both suits, from which no appeal was ever prosecuted.

Thus has been established another contention of this Board that it and its deputies have the right to examine and seize any game in transit in the custody of a common carrier, and in any person's custody, if such game is being used as a means of violating a provision of the Penal Code of this State for the protection and preservation of game. This Board has since then continued to exercise such right of examination and seizure, and will continue so to do, as long as it shall be necessary to enforce the game laws of the State.

DECISION OF THE SUPREME COURT IN QUAIL CASE.

EX PARTE S. KENNEKE, ON HABEAS CORPUS.

As soon as the game-dealers were defeated by Judge Seawell in the effort to obtain an order of court prohibiting the Commission and its deputies from seizing unlawful ducks and quail, their attorneys decided to make another effort to have the game law declared unconstitutional. To carry out this plan they had a Mr. Allen, who was a clerk in the office of their attorneys, swear to a complaint in the San Francisco Police Court, charging one S. Kenneke, who was a clerk with O'Brien & Sportono, one of the largest firms of game-dealers in San Francisco, with having sold "one quail" contrary to law, etc. As soon as this clerk Kenneke was arrested, a petition for a writ of habeas corpus was presented to Judge Carroll Cook, of the Superior Court, asking that said Kenneke be released from custody, claiming that the law was unconstitutional. When this petition came on for argument, this Board was represented by its attorney, and the matter was argued orally and briefs were filed, and soon afterward Judge Cook rendered a decision upholding the law.

After being again defeated, their attorneys filed, in the Supreme Court, a petition for a writ of habeas corpus, renewing their contentions that the law was unconstitutional. Again in this court the matter was argued at length orally, and thereafter briefs were filed and the case submitted for decision. The Supreme Court (with two Justices dissenting) upheld the law, and declared it to be constitutional in the following language:

Crim. No. 868--In Banc. June 11, 1902.

EX PARTE S. KENNEKE, ON HABEAS CORPUS.

PETITION FOR WRIT OF HABEAS CORPUS.

For Petitioner, Riordan & Lande.

For Respondent, Wm. Hoff Cook.

Petitioner was arrested and is held under a charge of violating Section 626k of the Penal Code, which is, omitting parts of the section not material here, as follows: "Every person who buys, sells, offers or exposes for sale, barter or trade, any quail * * * is guilty of a misdemeanor." The sole ground upon which petitioner seeks to be discharged is the alleged unconstitutionality of the said section. It is contended that the section is violative of the Fourteenth Amendment to the Federal Constitution, and of Section 11 of Article I of the Constitution of this State, in that it is not uniform in its operation, that it illegally discriminates between different classes of persons, that it deprives per-

sons of the equal protection of the laws, and interferes with the inalienable right of acquiring, holding, and protecting property. The contention is not maintainable.

Wild game belongs to the whole people, and the Legislature may dispose of it as may seem to it best—subject only to constitutional limitations against discriminations. Within those limitations the Legislature, for the purpose of protecting game, may pass such laws as to it seem most wise; and “the measures best adapted to that end are for the Legislature to determine, and courts can not review its discretion.” (*Ex parte Maier*, 103 Cal. 476, and cases there cited.) There is no question in the case at bar as to the reasonableness of an ordinance, as in *Ex parte Knapp*, 127 Cal. 101, and other cases cited; the provision attacked here is a law of the State passed by the Legislature.

The law in question does not destroy a right of property. This point was correctly disposed of by the Supreme Court of Illinois in *American Express Co. vs. The State*, 133 Ill. 649. In that case the court, dealing with a statute similar to the one here involved, and with this question of the right of property, say: “The fallacy of the position consists in the supposition that the person who may kill quail has an absolute property in the dead animals. In the *Magner* case, *supra*, it was held, as has been seen, that no one has a property in animals and fowls denominated game—the ownership was in the people of the State. This being so, it necessarily followed that the Legislature had the right to permit persons to kill or take game upon such terms and conditions as its wisdom might dictate, and that the person killing game might have such property interest in it, and such only, as the Legislature might confer. The Legislature has never conferred an absolute property in quail upon the person who might kill the same. The killing of quail during the months of October and November was permitted, not for sale—not to go upon the market as an article of commerce—but for the mere use of the person who killed the birds. The person killing quail under this statute has but a qualified property in the birds after they are killed. He may consume them. If a trespasser should take them from him, he might maintain an appropriate action to regain the possession. But the law which authorized him to kill the quail has withheld the right to sell or the right to ship for the purpose of sale, and when such person undertakes to ship for sale, he is undertaking to assert a right not conferred by law. The act, therefore, does not destroy a right of property, because no such right exists.”

There is no arbitrary discrimination in the law which would make it obnoxious to the Fourteenth Amendment, or to any provision of our State Constitution; there is no discrimination in it whatever. Under the law all persons have the same right to kill quail within certain limitations; and it provides that “every person who buys, sells,” etc. any quail shall be guilty, and does not give to any person the right to so buy or sell. (See, also, *Geer vs. Connecticut*, 161 U. S. 519.)

The petitioner is remanded and the writ discharged.

McFARLAND, J.

We concur:

GAROUTTE, J.

HENSHAW, J.

HARRISON, J.

BEATTY, C. J.

Therefore, through the efforts of this Board, the game law has been declared, by the highest tribunal in this State, to be constitutional and not class legislation.

In unequivocal language the Supreme Court has affirmed the legal principles and doctrines that the ownership, by any one in this State, of the fish and game thereof, is only a qualified and limited one, and not an unqualified or absolute one; that the Legislature, under its inherent right of grant and as a police regulation, has the power to legislate for the protection and preservation of such fish and game, and that when the Legislature exercises such power the courts can not review or annul the exercise thereof; that if any one desires to have such

fish or game he can only take it subject to the limitations and restrictions prescribed by the Legislature: as to the time when the same may be taken or killed, as to the manner in which it may be taken or killed, as to the size or age at which the same may be taken or killed, as to the number which may be taken or killed, as to the sex of the animal to be taken or killed, as to the manner of transporting the same after it has been taken or killed, and as to the disposition of the same after it has been taken or killed; and that if the person does not care to acquire ownership thereof under such limitations and restrictions as are thus prescribed, and of which, under the law, he is presumed to have full knowledge, he should let it alone, or else be prosecuted and punished for violating any of such limitations and restrictions.

THE EQUITY OF THE GAME LAWS.

This paper, by "a convert," which appeared in *Western Field* of August, 1902, treats, so fairly and forcibly, a much abused and poorly understood subject, that we feel constrained to recommend its careful perusal to all fair-minded citizens who have an interest in the preservation of our game.

CALIFORNIA FISH COMMISSION.

H. W. KELLER, President.

W. W. VAN ARSDALE.

W. E. GERBER.

SAN FRANCISCO, CAL., October, 1902.

THE EQUITY OF THE GAME LAWS.

By "a convert."

Game laws, like other laws, are made for a definite purpose, and that purpose is a wise one. So much controversy and discussion have arisen over the present game laws of this State, and so many widely divergent views are expressed, that one who is neither a hunter nor a fisherman may be permitted to present what may be called a disinterested or non-partisan view of the question, especially as close contact with friends on both sides has given the writer an opportunity to hear each side of the story, and to study the effect of our present game and fish laws.

It is unnecessary to discuss or even dwell upon the legal status of such laws, when before us is the record of thirty-eight States of the Union prohibiting the sale of game. Supreme Courts have pronounced them constitutional, wise, and just laws; our highest legal tribunal, the U. S. Supreme Court, adding its opinion to the credit side of such laws, as if to make "assurance doubly sure"; so it leaves only the equity side of the question to be considered. In other words, are these laws fair? Are they based upon the great American principle of giving the greatest good to the greatest number? It is charged that they are tainted with that which is so abhorrent to every American mind, "class legislation"; that is, legislation against the masses and for the benefit of the wealthy, the "favored few."

This is the indictment that rolls so glibly from the lips of the favor-hunting politician, and that flows so freely from the pens of many of our newspaper writers. It is the stock-in-trade argument of many attorneys when "extenuating circumstances" are scarce and it becomes necessary to give the imagination free rein. Occasionally a Supreme

Judge justifies his dissenting opinion by reasoning from such a viewpoint. Occasionally there is found one, like the late U. S. Supreme Justice Field, of sufficient mental vigor and moral courage to see and admit the error of his reasoning. He is quoted, since a dissenting opinion written by him in the famous case of "Geer vs. Connecticut," as the Rock of Ages to which other dissenters pin their faith, unaware, perhaps, that Justice Field, in a conversation two years later with his friend E. S. Pillsbury, the well-known attorney of San Francisco, stated that he was "convinced that the doctrine laid down by him in the Geer case was not good law, and that he regretted that he had ever written that dissenting opinion."

No one who has given the subject a moment's serious consideration can fail to see the need of placing restrictions on the taking of wild game, both as to numbers and as to the length of the season in which they can be taken. The difference arises chiefly as to the degree of restriction, and there are inequalities, no doubt. Our Legislature is confronted with a serious problem when it takes the enactment of game laws. Our State is so large and so diversified, the conditions according to localities so varying as to breeding seasons, that a general law—the only remedy at its hands—can not fit each section to its satisfaction. When a constitutional amendment is added which will permit of dividing the State into game districts, then legislation for the different districts can be enacted. At present the Legislature has as difficult a task as has the Federal Congress in passing a tariff bill that will suit to its satisfaction every State in the Union. Under present circumstances it does the best it can.

Many of those who criticise the restrictions do it thoughtlessly, not realizing that as civilization pushes out and extends its borders, taking up the wild lands, in exactly the same proportion are the breeding-ground and habitat of the wild game reduced; that the wild bird flies no faster, has no better means of defense, than it had two hundred years ago, while man has increased his efficiency to kill and take a thousandfold, advancing successively from the bow and arrow to a muzzle-loading gun, then to the rapid-firing breechloader with smokeless powder and belt full of cartridges, until finally there has been evolved the "Game Hog." Should there be any question about the wisdom of, and necessity for, these restrictions?

The charge is directly made that our legislators were guilty of framing laws in favor of the wealthy, the "favored few"; in other words, were either so base or so ignorant that they passed the present game laws; and the cry was taken up, and is being industriously and persistently circulated by some of the editors in the larger cities, and then copied by some of the interior papers who are "long on space," that an "infamous," a "villainous" law was passed, although our Supreme Court declared it constitutional and in no sense discriminating. Surely

one has a right to wonder and inquire, Why this sharp distinction in terms? Are these laws so unfair? Do they discriminate against the masses? Are the poor deprived of their right, and obstacles placed in their way to prevent their ever tasting game? Is it the poor who clamor so loudly? Have their wails reached the ears and pierced the hearts of these great philanthropists, or is it possible the philanthropic judge and editor have heard that cry at home, and, firmly believing that "charity begins at home," are preparing to receive it? Would it be a fairer, more equitable distribution, to allow the few market-hunters—most of whom are not taxpayers, and often not citizens—to take that which costs them nothing to develop, either in labor or thought; to shoot and ship to the cities where it can be and is purchased only by the well-to-do or wealthy classes? In truth, it is only these two extremes of society, constituting but a small proportion of our population, who are benefited by the sale of game.

It is true that the non-sale of game deprives those living in the cities who do not hunt, but who would buy game if they had the legal right to procure it in that way; but it does not deprive them of the right that any poor man in the country is glad to exercise to acquire his. The city man has that same right reserved to him, and the fact is that all those who at any time purchase game when in the markets have the means and generally the time to acquire it in the same way as the man in the country. In other words, the people who can afford to live in clubs, fine hotels, or swell boarding-houses, are deprived of their easiest way to get game—that is, to buy it. Are these people the masses? Are they the sick, the blind, the poor, that our philanthropic editors have in mind? Is it in their interest that this pathetic wail is set up? Have the poor suddenly acquired such influence that they can be heard in these high places; that their cries are heeded when they talk of game laws, but go unheard when they ask for better wages to buy bread and clothes for their families? Selfish interests produce strange arguments.

This does not apply to all who write against the present game laws. There are some who honestly believe that they work an injustice, because they do not understand the subject and follow blindly these clever, but fallacious arguments, and because they believe that that which deprives the poor man and favors the rich is wrong. They do not realize that the non-sale of game deprives no man of work or position; that the game-dealer employs just as many men whether it be poultry or game he handles; that the same is true of restaurants, hotels, or clubs; and that in the country the industrious, intelligent farmer who owns a few acres and follows the legitimate occupation of raising geese, ducks, turkeys, chickens, or squabs for the market, and who is generally a man of family, always a taxpayer and a citizen, receives a better return for his products than when game is allowed to

be sold. Besides, when he or his sons so desire, they can take their guns (and they always have them), and go out and find some game which has not been shot or scared away by the market-hunter, who scours the country for that which costs him nothing, in order to send it to the comparatively few of the wealthy in the cities who can afford to buy.

They do not realize that the present game laws are to the interest and advantage of such men, and to the disadvantage only of the market-hunter who shoots for the rich. They do not stop to contrast the two types of men, the market-hunter and the poultry-raiser, as citizens; they do not realize that every clerk, every laborer, every business man in the country can have his day afield with some profit and some pleasure; that every mechanic or man employed in business in the city can take a holiday and go into the country when game is abundant and be repaid for his time and expense. They do not stop to think that where one gun and necessary ammunition are sold to a market-hunter, twenty will be sold to men who enjoy hunting, and who will go hunting if there is promise of a fair return. In short, they do not understand that the bone and sinew of our country, represented by the great middle classes, will have an abundance of that which they do not buy, but which they can take in the way they enjoy the most.

It is true that the non-sale means that less game will be killed; that it can, and will increase and multiply; and in that respect (incidentally) will the rich sportsman be benefited, and along with him will every poor man be a gainer. Indeed, it is doubtful if the wealthy sportsman will be so much of a gainer, since his well-stocked preserve is safe from the market-hunter, who must ply his vocation over that very land on which the poor man must of necessity depend for his pleasure and his share of game. As a matter of fact, many of the preserve sportsmen were against the present laws, because on their lands, over which none but themselves hunt, there was not noticeable the growing scarcity of game, and they objected to the wise provisions that placed a limit on the number they could shoot in a single day—a condition which placed them on the same footing with the man who does not belong to a club or own a preserve.

This brings us to the subject of preserves, and it is one that certain editors, who would like to pose as friends of the poor man, work to a finish. It is one of the subjects they revel in when recounting all the "evils" resulting from a number of wealthy men renting a piece of land, putting up buildings, hiring watchmen and caretakers, and in fact paying quite a sum monthly for the privilege of going several times a season for a shoot. Now this is not intended as a defense of preserves or baited ponds shot over from blinds—a practice that is barbarous! It is rather to invite attention to the fact that game laws have nothing to do with

preserves. Will some of the learned judges and great newspaper protectors of the poor point out the connection?

Why tear down the game laws and give still greater advantages and opportunities to the preserve man? There is yet no legal way devised under our system of government that can prevent a man with sufficient means from purchasing or renting more land if he thinks he requires it, and, after acquiring, controlling it, and saying how much or how little it shall be open to the public. It would seem most unwise and even childish, because of real or fancied grievances against the preserves, that the only safeguards of the poor man be torn down simply because some one must be sacrificed; meanwhile, the preserve remains untouched.

To follow out this line of reasoning, we should deny a person having land that is unproductive—and nearly all shooting preserves are—the right to rent it and receive an income from it. He should open it to all comers; he should be so liberal and broadminded that he must not object if his premises are invaded, his stock wounded or driven away, and his fences destroyed, but sit calmly by—and wait for the Tax Collector. If he dared lease it to a man or number of responsible men who would take care of it and pay him besides, he would be committing an offense. Why not go a step further and advocate that, in a city supplied with street railways on which every one can ride for five cents, it shall be an offense against the public morals, peace of mind, etc., for any person to ride in any other way?

Another of the arguments frequently used is the pointing out of the hardships and suffering imposed upon invalids who “must” have game and are unable to purchase it. If that has any value, then there should be no close season whatever, no restrictive measures, else all the invalids would die during the eight months of close season; otherwise there are about four months in the year when they could exist, and now even that lease of life by our present “infamous,” “villainous” game laws has been swept away. Unfortunately, statistics of the mortality are generally omitted. Is it not a fact that the sick of the masses or middle classes would appreciate a young squab, or the young of any other domestic fowl? Can they not be purchased at all seasons of the year, and as cheaply as game (when sold)? Does not that sale benefit the dealer, and also some other man following a legitimate occupation in the country?

Are we not growing more ardent year after year for active, health-giving outdoor life, for the strenuous life in the fields? What greater attraction does the country offer, whether camping or at a country tavern, than the promise of a well-filled basket or bag? What resort does not advertise—even when they have it not—its fishing and hunting? Does not that attraction, besides giving new vigor and health to thousands, mean the better circulation and distribution of the city's wealth? Is it not a positive benefit both to the city man and to the

brother in the country? The present game laws are accomplishing the purpose for which they were enacted. One has but to travel in the country, anywhere, to see and appreciate the effects. Never in years have the quail and doves been so numerous. Deer are increasing, and there will be plenty for all. And it belongs to all—the people in the country as well as the people in the city. Under the existing laws the greatest good to the greatest number will be accomplished.

“With malice toward none and charity toward all,” the foregoing is respectfully submitted, and with the hope that a little more serious consideration of all the aspects of the case will show that our present game laws are not only legal but also equitable.

STUDIES IN THE NATURAL HISTORY OF THE SACRAMENTO SALMON.

BY CLOUDSLEY RUTTER,

Assistant United States Fish Commission.

The following notes are derived mainly from a series of investigations carried on under the direction of the U. S. Commissioner of Fish and Fisheries, by whose permission they are here used.

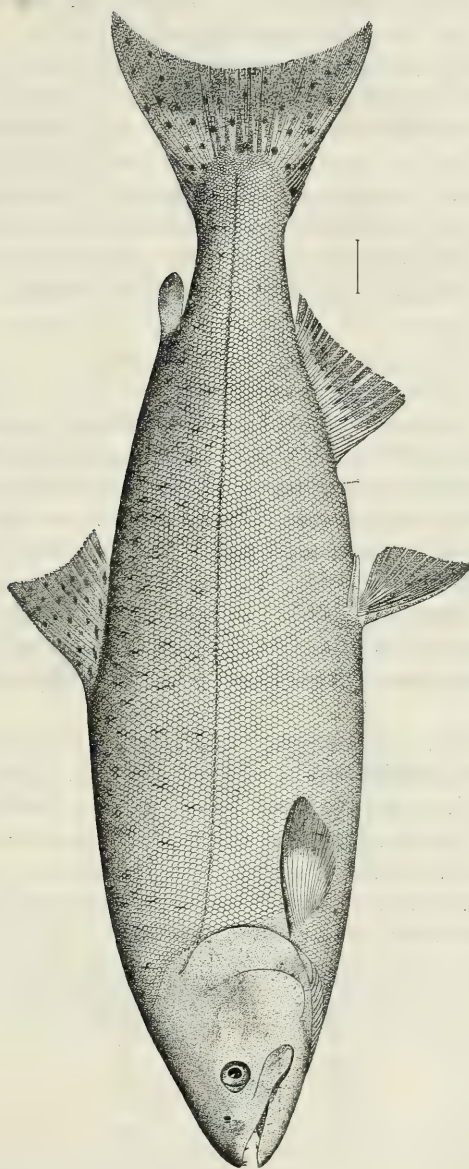
The Pacific salmons, the genus *Oncorhynchus*, of which there are five species, are very distinct from the Atlantic salmon of the genus *Salmo*. In fact, they have no more right to the name salmon than wolves have to the name fox. Anatomically the two genera do not differ greatly—*Oncorhynchus* having fourteen or more rays in the anal fin, *Salmo* ten to twelve—but physiologically and in life-history they differ in a marked degree.

The most important difference lies in the fact that the Pacific salmon, of whatever species, dies immediately after spawning once. This is true of both males and females, and is a very remarkable characteristic. It is often denied upon *a priori* reasoning, the common argument being that, if they all died on the spawning beds the rivers would be full of dead salmon floating down stream. But the common idea that dead fishes float is erroneous. Those that die a natural death do not float, and the salmon is not an exception.

NATURAL PROPAGATION.

Under natural conditions, the female salmon extrudes the ova, a few at a time, in a swift current near the bottom of the stream. Many are carried several feet, or even yards, down stream by the current, and are nearly always devoured by other fishes, such as the trout, sculpin, Sacramento pike, and split-tail. Some of them, at least, are caught in the eddies formed among the cobblestones, and are held near the "nest," or hillock of gravel thrown up by the spawning fishes. These are covered by the sand and protected, though many are covered too deeply and are killed.

Salmon ova are about .25 inch in diameter. The "shell" is membranous and finely porous, with a minute aperture, somewhat larger than the pores, known as the micropyle. When first extruded the ova



SACRAMENTO, OR QUINNAT, SALMON—*Oncorhynchus tshawytscha*.

are soft and compressible, and it is while in this condition that they must be fertilized. Within two or three minutes after being deposited in the water they become turgid, and are then incapable of fertilization.

Immediately after the extrusion of a few ova, the female moves away from the "nest," and the male takes her exact position, or sometimes a little down stream from it, and extrudes a small quantity of milt. The milt is a milky white fluid as full of spermatozoa as blood is of corpuscles. It rapidly disseminates through the water, and is carried away by the current just as the ova were. Doubtless many hundred spermatozoa come in contact with each ovum, though probably only one finds its way through the micropyle, which causes fertilization. The salmon egg is too large to permit a microscopic examination of the process of fertilization, though without doubt it is the same as in other fishes.

ARTIFICIAL PROPAGATION.

Fertilization is secured at fish culture stations by expressing the ova and milt simultaneously into a pan and thoroughly mixing them by stirring with a feather or the fingers. Two methods of procedure are in vogue among salmon culturists. The one, known as the "dry" method, consists in expressing the ova and milt into a pan that has been merely rinsed with water; in the other, known locally as the "wet" method, about a pint of water is placed in the pan before the spawning. A careful comparison of the results has failed to show any difference. The "wet" method requires a less quantity of milt, which is sometimes a desideratum.

Numerous experiments were performed testing the vitality of ova and milt under various conditions, of which I note the following:

A quantity of the ordinary creek water, such as was used in artificial propagation, was spermatized, and a portion of it used for fertilizing ova at various periods after the spermatization, in order to test the vitality of spermatozoa in water. The following results were obtained from one experiment, which may be considered typical:

Time Milt had been in Water. Minutes.	Percentage of Fertilization.	Time Milt had been in Water. Minutes.	Percentage of Fertilization.
$\frac{1}{4}$	98	4	0
$\frac{1}{2}$	88	5	0
1	38	6	0
$1\frac{1}{2}$	4	7	2
2	8	8	0
3	8		

Similar experiments were performed with the ova, to determine their susceptibility to fertilization after being immersed in water for various

periods. The following results were obtained from one series, which are typical of the others:

Time Ova had been in Water. Minutes.	Percentage of Fertilization.	Time Ova had been in Water. Minutes.	Percentage of Fertilization .
$\frac{1}{4}$	98	4	4
$\frac{1}{2}$	96	5	4
1	95	6	0
$1\frac{1}{2}$	68	7	1
2	57	More than 7	0
3	17		

The average salmon produces about 6,000 ova. In artificial propagation from 5 to 20 per cent can not be spawned. These can be removed only by slitting the fish open, in which case a considerable quantity of blood is mixed with them. If the blood is not washed off, the fertilization can not be made complete, as many of the ova become surrounded with clotted blood. But, if the blood is washed off with water, the ova immediately become turgid and not susceptible of fertilization. The difficulty was overcome as follows:

Among the many experiments testing the vitality of the ova and their susceptibility to fertilization under various conditions, one determined their reaction to normal salt solution. By normal salt solution is meant water of the same degree of saltiness as the body fluids, which in the case of the salmon we assumed to be .75 of 1 per cent, no chemical determinations having been made. Ova were spawned into a pan containing normal salt solution, and after various periods of time a few were removed and spermatized in the ordinary manner, with the following results:

Time Ova had been in Salt Solution. Minutes.	Percentage of Fertilization.	Time Ova had been in Salt Solution. Minutes.	Percentage of Fertilization.
2	99	8	99
4	100	15	97
6	100	25	86

Compare this table with the one showing the effect of pure water on the ova. Acting upon the information gained in this experiment, we removed the unspawned ova from the fishes, washed off the blood with normal salt solution, and fertilized them just as we did other ova, thus saving a large percentage that had previously been lost.

HABITS OF THE YOUNG.

Before this series of investigations was begun, fish culturists were able to hatch artificially from 80 to 90 per cent of the eggs taken, and it did not seem that much improvement in that line was probable. But there was considerable question as to the best methods of planting the young. We were entirely ignorant concerning the life of the young in

the streams, knew nothing of their food, nor of their enemies, and knew only in a general way that they migrate to salt water. Our most important study, therefore, was that of the natural history of the young, and later of the adult, also. The following are some of the results of our investigations:

The time required for salmon eggs to hatch is about fifty days, though it varies from one to six months, according to the temperature of the water. When the young first leaves the shell, it is attached to a large mass of yolk, and is known as an *alevin*. It is a very helpless creature, can not swim, and fortunately does not need to eat, the yolk supplying the needs of growth.

For three or four weeks the alevin lies quietly at the bottom of the stream in the crevices of the stones. By that time the quantity of the yolk becomes so small that there is a desire for more food, and the alevin occasionally leaves the bottom to snap at some floating particle. It is at this time, while the movements are slow on account of the unabsorbed yolk, that the young under natural conditions are in the greatest danger from other fishes. In artificial propagation they are protected during this period, and it is only after the complete absorption of the yolk that they are liberated in the streams. At this age they are known as *fry*.

The fry are practically without enemies. The stomachs of more than a thousand trout taken in streams inhabited by young salmon have been examined, but in no instance has a fry salmon been found, though alevins were common enough. Many Sacramento pike and striped bass have also been examined, with a like result. There can be little doubt that the salmon fry in fresh water is able to take care of itself.

Our most extended observations were made on the migratory habits of the fry, and I give a somewhat detailed account of them. In May and June, 1898, we visited all parts of the Sacramento River, from its source to Suisun and San Pablo bays, and even traveled 250 miles down the river in a rowboat. We were equipped with fine-meshed seines, which we used wherever it seemed practicable or desirable to gain information concerning the young salmon. We found them abundant everywhere above the middle portion of the river, and in a decreasing number all the way down to the mouth, and along the shores of the bays. We considered them abundant when we caught anywhere from 25 to 400 at a single haul of a 50-foot seine. They were about two inches long wherever taken. The same observations were made again in July. In the headwaters, at the Sims, the fry were as abundant as at the previous examination. There were fewer at Redding, very few at the mouth of Battle Creek, and none at all below the latter point. All that we had found on the previous examination had gone down

stream and had passed into salt water. As we afterward learned, the salmon fry observed during this first examination were merely the last of the season's migration, and not all of it, as we first supposed.

While at Battle Creek hatchery during October and November, 1898, we continued the observations by setting a trap in Battle Creek, and so arranging it that it caught only such fishes as were going down stream. By this means we soon learned that the fry begin their migration much earlier and younger than our previous summer's work had led us to suppose.

Of the 339 young salmon taken in the trap, 322 were under 2 inches long and 17 over 4 inches. 178 of the smaller specimens were measured accurately, with the following results:

Size, inches,	1.4	1.5	1.6	1.7	1.8
Number,	23	100	53	1	1

The smallest had just absorbed the yolk-sac, and in many there was yet a small quantity of yolk remaining. Those 1.6 inches long had not been feeding over three weeks, as other observations show that they grow at the rate of .3 inch a month. That we found young salmon that had barely absorbed the yolk-sac indicates that they begin their migration as soon as they are able to swim. That they remained of the same size from October 8 to November 30 indicates that practically all start down stream at the same age. If any of the same age as those taken October 8 had been taken during the last days of observation, the fact would have been indicated by their increased size. In 53 days they would have grown over half an inch, and would have been at least two inches long. There were no intermediate sizes between 1.8 and 4.0 inches. The larger individuals had remained over from the previous year. The trap was so set that they could not have avoided it during the day. The fact that none was taken during the day indicates that they travel more or altogether at night. The last record shows that 24 were taken from 8 to 9 A. M., which is the only day record. This is accounted for by high and muddy water, caused by a heavy rain during the previous night. This and other observations indicate that high and muddy water, especially the latter, is an incentive to day travel.

The two months' observations with the trap at Battle Creek were deemed of such importance that two observation stations were established on the river the first of January, 1899, and equipped with similar traps. The upper station was established at Ball's Ferry, some three miles above the mouth of Battle Creek; the other at Walnut Grove, on the lower river.

The work at Ball's Ferry indicates that the greater part of the young salmon passed that portion of the river between the middle of January and the middle of March. Practically all had passed by March 20. Numerous measurements made at frequent intervals show that the daily

average size varied but one tenth of an inch during the three and a half months. The average of all measurements is 1.53 inches. This confirms the inference from the Battle Creek work that practically all the fry begin their migration as soon as they are able to swim, otherwise the later ones would have been larger.

From the middle of January to the middle of May there were salmon fry in various numbers passing Walnut Grove. The height of the migration was from March 4 to about the 24th, lasting about 20 days. Practically all had passed by April 22. The size of those taken during January was 1.6 inches, during February 1.8 inches, during March 1.7 inches. From March 30 to May 7 they increased from 1.7 inches to 3.0 inches. The field notes show that as many fry were taken during the day as at night. The water of this portion of the river is muddy.

The average size of the fry passing Ball's Ferry January 30 was 1.51 inches, and of those passing Walnut Grove 34 days later 1.79 inches, an increase of .28 of an inch. Those passing Ball's Ferry February 18 were 1.48 inches long, and 34 days later at Walnut Grove 1.77 inches, an increase of .29 inch. We have learned from other sources that the fry increase in length about .30 inch a month, and .28 and .29 inch in 34 days is not far from that rate.

It seems, therefore, both from the size and number taken at the two stations, that fry are about 34 days in passing from the upper to the lower station. The distance between the two stations is about 350 miles, as the river winds, and their average daily progress is therefore about 10 miles a day.

An object floating with the current would make the distance between the stations in less than 10 days, and if fry traveled only at night and merely kept with the current, they would be only 18 or 20 days on the way. It is probable that fry in migrating drift down stream tail first, keeping the head up stream for ease in breathing, as well as for convenience in catching food. In this way they would drift more slowly than the current. I have seen fry at Battle Creek fishery traveling with the current, and always with the head up stream, unless frightened. The later and larger specimens found at Walnut Grove had simply been longer on the road. The larger they became the more slowly they drifted. Without doubt there are a few passing down the river all summer, though we have been unable to find any after June.

Much seining was done along the shores of Suisun, San Pablo, and San Francisco bays, and in Tomales Bay, to determine something of the fry in brackish and salt water. Very few specimens were taken, probably not over 50. The smallest specimens taken in San Pablo Bay were 2.4 inches long, which indicates an age of about $4\frac{1}{2}$ months, and a period of three months for the migration.

A net stretched across the mouth of Olema Creek, emptying into

Tomales Bay, caught salmon fry coming back into the stream at flood tide. This indicates that they regularly travel back and forth with the tides. We should expect this, as it is hardly probable that they know any directions, except with or against the current.

Many experiments were performed at the Hopkins Seaside Laboratory for the purpose of determining the effect of sea-water upon young salmon of various ages. 25,000 salmon were hatched in the laboratory, and at various ages a few were placed in separate tanks and subjected to various mixtures of fresh sea-water. Without going into details of the experiments, the following are the results obtained:

The young of any age can bear with impunity a density of 25 per cent sea-water; that is, 1 part sea-water to 3 parts fresh water. Not until 40 days old, at the time of the complete absorption of the yolk-sac, could they withstand a density of 50 per cent sea-water. At the age of 50 days 75 per cent sea-water could be endured. Pure sea-water could be endured at the age of 60 days, though there was a slight loss. It is doubtful whether they can enter salt water with complete impunity until 3 or 4 months old. The loss was much less when the density alternated from low to high and back again, simulating the change of density in the estuaries with the change of tides. In all cases the young salmon died when changed directly from fresh to salt water, or when the density was rapidly increased until that of sea-water was reached.

To summarize the notes on migration: The fry begin their downstream migration as soon as they are able to swim. In clear water they travel more at night; in muddy water, as much or more during the day. Much of the time they float down stream tail first. In the larger streams they travel more or less in schools. Their regular migration is not dependent upon the height of the water, but upon age. Their rate of progress is about 10 miles a day, and they are about six weeks in reaching brackish water. They are probably four or five months old when they reach the ocean.

SUMMER RESIDENTS.

In the upper portion of Sacramento River and its tributaries there remains after the winter and spring migration a large number of young salmon. In the vicinity of Sims in 1898 we found 700 to 1,000 in the various pools. They were common in McCloud River in September, and in Fall River in August.

These summer residents, as they may be called, are confined to the headwaters, the clear streams with rocky bottoms. They do not stay much of the time in the swift current or riffles, but remain in the more quiet pools, where they feed on insects and take the angler's fly the same as trout. Considerable effort was made to learn as much as possible

concerning them, and Sacramento River near Sims and its tributary, Hazel Creek, were visited each month from May to December with that end in view.

During July and August, all specimens taken were marked by cutting off the adipose fin, by which means we were able to make estimates of the number in the pools, their rate of migration, and their rate of growth. The number estimates were made thus: After having marked a few and released them in the pool, the following proportion was formed with the data from each seine-haul: the number of marked fry taken is to the number of marked fry in the pool, as the total number taken is to the total number in the pool. In August, when we could distinguish those just marked from those marked in July, we were able to make estimates of the number of July-marked fry in a pool and, knowing the number released there in July, to compute the rate of migration for the month.

The following table gives the result of the work in one pool, and illustrates the data used in making the number estimates:

Date.	No. Caught.	No. Previously Marked.	No. Marked Fry Caught.	Estimated No. in Pool.
Aug. 16 P. M.	66	1	1	
"	148	66	13	751
"	146	197	30	992
Aug. 17 A. M.	83	312	38	682
"	47	357	19	883
"	19	385	4	1,804
"	64	400	25	1,024
"	149	439	62	1,055
"	71	525	40	932
"	35	556	15	1,297
Aug. 17 P. M.	19	576	9	1,216
"	3	586	3	586
Total different individuals, 24 hrs., 586			Average of estimates, 1,022	

The average estimates for two other smaller pools are 685 and 861. From these estimates it seems probable that there were about 10,000 young salmon to the mile in the upper Sacramento during the summer of 1898, or less than a milliom in all the headwaters, which is a very small percentage of the year's product for the river. At Battle Creek hatchery alone that year, 1897-98, there were nearly 50,000,000 eggs taken. There is little migration of the young salmon during the summer months. In August we could account for 94 per cent of the fry we had marked in one of the pools in July; 76 per cent in the pool in which they were released, and 18 per cent in the pool below.

The growth of the larger fry in fresh water is slow. The average size of the marked fishes in August was 3.91 inches, in September 3.86 inches, in October 4.20 inches, in November 4.20 inches, being a total

gain of but .29 inch in three months. The earlier rate was .3 inch per month. Another effect of this summer residence in fresh water is the maturing of the male genital organs. A large proportion of the males that remain in fresh water until they reach the length of four inches becomes sexually mature. Its significance is not understood, and its effect upon the future growth of the fish is not known. The number of parasites found in the stomachs of young salmon living in fresh water increase with their size and with the time of year, there being more in the fall than earlier. Their food in fresh water at all ages, seasons, and places is insects, about two thirds being aquatic larvæ, and the other third adult insects.

THE ADULT.

As stated above, young salmon reach the ocean when four or five months old. Concerning their habits from that time until they return to fresh water at maturity, we know very little. They are occasionally taken in the ocean near San Francisco, but so rarely as to indicate very little concerning their habits. They are abundant in Monterey Bay during the spring and early summer, but their appearance there is only the first step in their migration up the rivers to spawn.

The length of their stay in the ocean has been determined with considerable certainty by a series of observations carried on recently with the Columbia River salmon, which is the same species as the Sacramento salmon. In May, 1896, 5,000 young salmon 2.5 inches long were marked by cutting off the adipose fin, and were released in the Clackamas River, a tributary of the Columbia. The eggs from which they were hatched were spawned in September, 1895. During the summer of 1898, a little over two years after the marking, and a little less than three years after the spawning of the eggs, 375 of the marked salmon were taken in the Columbia, and five were taken in the Sacramento River in California. A few more were taken both in the Columbia and in the Sacramento in 1899, and again in 1900. The size of those taken in 1898 varied from 10 pounds to 57 pounds.

Besides indicating the age of the spawning salmon, this experiment shows that most salmon return to the river through which they reached the ocean. They do not do this because it is the stream in which the parent fishes spawned—the 5,000 mentioned in the experiment were from eggs taken in California—but because their ocean feeding grounds are not far off-shore, and in their two years' residence in the ocean they have not wandered far from the point at which they entered it. When it comes time to return to fresh water, their native stream is the first to attract attention.

Adult salmon may be found in the Sacramento River at any time of

year. There are, however, two distinct runs, the earlier of which passes up the river during April, May, and June, and the later during August and September. The former is known as the spring run, and the latter as the fall run. The salmon of the spring run ascend the river to the headwaters, such as the upper Sacramento, McCloud River, and Hat Creek, and some of the earlier ones even pass Pit River Falls and enter Fall River. The salmon of this run spawn mainly in August. The fall salmon do not ascend the river so far as those of the spring run, but turn aside into the lower tributaries, or spawn in the main river. They reach their spawning grounds during the latter half of October, November, and the first half of December. The main river is very low at this time of year, and only a small portion enter the tributaries.

DETAILS OF MIGRATION.

When the salmon enter the bay from the ocean, they come in against the ebb-tide. They stem the current until the tide changes, and then run out against the flood-tide, losing much of the distance gained during the ebb.

The tide runs up the bay and river as a broad, low wave, on the upper side of which is flood-tide, and on the lower side ebb-tide. This wave is about three hours going from San Francisco to Benicia; it reaches Collinsville in about four hours, and Rio Vista in four and a half hours. When the crest of a wave is at Isleton, its trough is about at the Golden Gate. The farther the tide extends up stream, the smaller the wave, the shorter the flood, and (as the flood and ebb must together equal twelve hours) the longer the ebb.

By taking the statistics of the daily catch of salmon at various points, we have been able to trace the progress of a school up stream, and find that it requires four days to pass from Vallejo to Sacramento. We have been unable to determine the length of time required to reach Vallejo after leaving the ocean.

The spring run passes up the river quite rapidly, reaching their spawning grounds in the McCloud River in about six weeks after entering the river at Collinsville. The fall run moves more slowly. The flood and ebb tides are more nearly equal, owing to the small amount of water coming from the rivers, which makes a longer passage through the bay. After reaching the shoals in the middle portion of the river they move slowly, having already found pretty good spawning grounds. They are about two months reaching their spawning grounds, which are but little more than half as far up stream as those of the spring run.

In September, 1901, over a hundred salmon were weighed and branded with serial numbers and released in the river at Rio Vista. Three of

these were taken later upon their arrival at the spawning grounds. The following is a tabular statement of the data concerning them, the loss in weight being due to migration alone. No. 34 was 8 days in spawning, extruded all but 20 ova, and lost thereby 21 per cent more of the Rio Vista weight:

No.	Sex.	Distance Traveled. Miles.	Time. Days.	Loss in Weight. Percentage.
8	female	300	65	28
34	female	300	61	20
43	male	350	65	26

The salmon of the spring run reach their spawning grounds from two to six weeks, or even longer, before spawning, which time they spend lying quietly in the pools. The fall salmon are more nearly ripe when they arrive at the spawning grounds, many of them ceasing to ascend only when ready to spawn.

SPAWNING AND DEATH.

Salmon are in fairly good condition when they begin spawning, notwithstanding the fact that they have been without food for several weeks or even months, and have traveled several hundred miles in the meantime. The male has changed his appearance. His snout has grown longer and much hooked; large, conical, hooked teeth have appeared in his jaws; his body has grown thinner and apparently deeper, though the latter point has not been determined yet by measurements; his skin has thickened and embedded the scales. The larger males become somewhat reddish in color as spawning time approaches. The female has changed less. The abdomen is somewhat distended from the ripening ova, the skin thickened as in the male, and the color has become more or less of a dull olive.

As spawning progresses, both sexes rapidly become emaciated. Their fins become frayed and worn, especially the caudal fin of the female, which is frequently entirely worn off. Fungus attacks the skin in various places, especially the top of the head and the fins, and it frequently destroys one or both eyes. The gills are nearly always attacked by fungus and parasitic Copepods, and half or even three fourths of the gill filaments are sometimes thus destroyed. The skin is worn off in many places, such as the side of the tail, the projecting edges of the jaws and fins, and the snout of the male. They have eaten nothing since leaving the ocean, and the alimentary canal has long since shriveled up until the stomach is scarcely one tenth its normal size; a catarrhal desquamation takes place all along the digestive tract, but especially posterior to the stomach, which portion is frequently filled with tapeworms. At least two other kinds of parasitic worms are frequently found in the

abdominal cavity. Both sexes lose from 30 to 40 per cent of their weight.*

Such is the condition of the salmon at the time of death. It is not the spawning itself that produces this effect, but the continuation of the spawning efforts after all ova have been extruded and fertilized. Usually there is considerable vitality in both sexes at the time of the complete extrusion and fertilization of the ova, and they have enough energy left, in many cases, to carry them back to the ocean. But they exhibit no inclination to go. Instead, they continue on the spawning beds, persevering in their efforts to spawn and fertilize more eggs. When one fish of a pair dies, the other seeks or is sought by a new mate. Probably the female never notices the death of the male, as there are nearly always several males fighting around each "nest." If there happens to be no salmon in the vicinity when one of a pair dies, the survivor continues his or her efforts alone, futile though they are.

This extreme devotion to a purpose is almost without parallel. There is no instinct whatever to return to salt water. It is even doubtful whether they would revive if taken back. The dog salmon and hump-back salmon spawn in small streams that empty directly into the ocean, and they are found dying and dead in brackish water. The fact that all salmon, of the genus *Oncorhynchus*, die immediately after spawning once can not be questioned.

*The description here given of the spawning salmon should not prejudice any one against the fish as found in the markets, either fresh or canned. Such are taken either in salt water or within a few days after leaving it, and are in prime condition. Indeed, they must necessarily be, in order to make the long journey up the river and live several months without food. Chemical analyses have shown that the Sacramento salmon is the most nutritious of fishes.

THIRD BIENNIAL REPORT

OF THE

STATE COMMISSION IN LUNACY

FOR THE

TWO YEARS ENDING JUNE 30, 1902.



SACRAMENTO:

A. J. JOHNSTON, : : : : SUPERINTENDENT STATE PRINTING.
1902.

STATE COMMISSION IN LUNACY.

HON. HENRY T. GAGE,	-	-	-	-	-	<i>Governor of California.</i>
HON. DANIEL KEVANE,	-	-	-			<i>Secretary of State Board of Examiners.</i>
(Acts in absence of Governor.)						
HON. CHARLES F. CURRY,	-	-	-	-	-	<i>Secretary of State.</i>
HON. U. S. WEBB,	-	-	-	-	-	<i>Attorney-General.</i>
HON. CHARLES N. POST,	-	-	-	-	-	<i>Assistant Attorney-General.</i>
(Acts in absence of Attorney-General.)						
DR. F. W. HATCH,	-	-	-	-		<i>General Superintendent of State Hospitals.</i>
DR. W. P. MATHEWS,	-	-	-	-	-	<i>Secretary of State Board of Health.</i>

OFFICERS.

[illegible]

OFFICE OF THE
STATE COMMISSION IN LUNACY.

SACRAMENTO, December 8, 1902.

To the Legislature:

In compliance with the statute, the State Commission in Lunacy herewith presents its third biennial report, covering the two fiscal years beginning July 1, 1900, and ending June 30, 1902.

The report includes such facts in regard to the management of the institutions for the insane as seem necessary for your information, including estimates of the amounts asked for the maintenance of the State Hospitals, and also the annual reports made to the Commission.

Respectfully submitted.

STATE COMMISSION IN LUNACY.

REPORT OF STATE COMMISSION IN LUNACY.

The past two years have been marked by progress, enlargements, or improvements in nearly all of the hospitals.

Three of the four hospitals located in the northern part of the State have been equipped with oil-burning plants and have been using crude oil as fuel for steam purposes for the greater part of the last fiscal year. The change in fuel, from an economical and other standpoints, has been very gratifying, the item of expense for heat, light, and power in Stockton, Napa, and Agnews, where the change was made to oil, showing a decrease of \$13,629.73 in comparing the last fiscal year with the year ending June 30, 1901, when coal was used. The cost of changing from coal to oil, providing the necessary tanks and machinery, etc., was made from the Contingent Fund, and was less than \$1,000 for each hospital, with the exception of Napa, where, owing to the distance of the hospital from the railroad, an extensive pumping plant and a 50,000-gallon storage tank had to be installed, at a cost of nearly \$6,000; which amount has been saved in less than a year's use of oil.

Among general improvements it may be mentioned that the boiler plant of the male department at Stockton has been made as good as new, at an expense of about \$3,500.

An important piece of construction work is now under way at the Stockton State Hospital, which, when completed, will increase the capacity of the institution by one hundred patients. New bakery and kitchen buildings have been constructed and will be equipped with improved cooking and baking apparatus. The building which formerly contained the kitchen and bakery will have an additional story added, and will be changed to afford more room for patients. The work is being done from the Contingent Fund, and will cost about \$15,000. The large chimney at the boiler-room of the female department having become unsafe, it has been torn down and a new one erected, at a cost of \$2,322.70, also paid from the Contingent Fund.

The Napa State Hospital has been entirely repainted exteriorly, and the gutters, roof and tin work overhauled, at an expense of \$3,342.85 from the Contingent Fund. This was a much needed repair. Considerable work has been done toward enlargement of the irrigation reservoirs at this institution. Work of improving the hot-water supply of the

building is now going on. An electric lighting system has been installed at this hospital, the light being furnished by the Bay Counties Power Company.

At the Agnews State Hospital a new two-story brick building, accommodating one hundred male patients, has been constructed and furnished, at a cost of about \$28,000, paid from the Contingent Fund. It is now occupied by patients, and is a distinct advance in cottage construction in this State. The two original cottages at this hospital have had new foundations placed under them, have been replastered and generally overhauled, by an allotment from the Contingent Fund. It is proposed to continue cottage construction at this institution, as being the best means of enlargement.

At the Mendocino State Hospital an electric light plant has been installed and is in successful operation. The plant cost about \$7,000, and was paid for from the Contingent Fund. It is operated by either steam or water power, and since its installation has been run entirely by water from the hospital reservoir. It is thought that, taking one season with another, it can be operated with water at least eight months of every year, thus making the cost of light very small. In the past this hospital has been wretchedly lighted, at considerable expense, by gas generated from gasoline. The installation of the electric light plant is distinctly a marked improvement from both a financial and a service standpoint.

With an appropriation of \$21,000, made by the last Legislature, two hundred and seventy acres of land has been purchased and added to the farm of the Mendocino State Hospital; a new main sewer has been laid; and a herd of dairy cows has been purchased. The land, or the greater part of it, is river bottom land, very rich and fertile, and will add much to the productiveness of the farm of this institution. A large crop of hay and much fruit were raised on the newly purchased land during the present year. The new sewer, when in full working order this winter, will do away with the vigorous complaints made against the manner of disposing of the sewage of the hospital. The dairy is in good running order and is now supplying the hospital with milk.

At the Southern California State Hospital, with a legislative appropriation, and with the aid of the Contingent Fund, a new wing, with accommodations for one hundred and eighty patients, is nearing completion and will be opened for the reception of patients before January 1, 1903. From the same source of revenue a cottage has been built for the Superintendent of this hospital and is now occupied by him. From the Contingent Fund a cottage has been built for the Steward.

Turning for a moment from improvements of a constructional nature to improvements in management and the care of patients, it may be said that a new classification of insanity, to be used in all the hospitals,

has been adopted by joint action of the Superintendents and the Commission. The classification will insure more uniformity in reports and will enable a more intelligent opinion to be formed from the statistical returns of the hospitals.

What will be a marked improvement when under full operation is the training school for nurses in each hospital. The necessary textbooks for the use of the attendants have been purchased by the State, and in some of the hospitals the training schools are in successful operation. These training schools are distinct innovations in the hospitals for the insane of this State, though in pretty general use in similar institutions throughout the country. They are looked upon as a most important adjunct in the care of the insane, and, to be up and doing, we must have them. This matter of training schools for nurses is not received in all of the hospitals with universal satisfaction, and it will doubtless take some little time to get the entire system in successful operation. Many of the attendants at our hospitals seek the position with no intention of remaining long in the work, and naturally they have no desire to take the extra duty of study on themselves. Boards of Managers are not all favorable to the proposition, either. The schools are now in successful operation at Mendocino and Southern California State Hospitals, and are expected to be started before January 1st next in two more; but the innovation is still meeting with obstacles in one.

It can be said with perfect truth that the care of the insane in our hospitals is being made more of a study, that more individual attention is given to the patients, and that the standard of care is being raised all along the line.

That our hospitals generally are filled beyond their proper capacity is true, but this is a common trouble, and nearly every State in the Union has its period of hospitals filled beyond their proper capacities. Work now under way, for which the money has been provided, will add increased capacity for two hundred and fifty patients. Some additional enlargement will be asked of the incoming Legislature.

The biennial period closes with the funds of the hospitals in good condition, there being no deficiencies to record.

THE URGENT NEED OF AN ASYLUM FOR THE CONVICT INSANE.

It seems only right and proper that the attention of the Legislature should be called to the necessity of providing a proper place for the care of the convict insane. For many years convicts becoming insane have been committed to our hospitals, and in consequence we now have fifty-five convicts in our hospitals.

It would seem to be hardly necessary to point out that the hospitals are not the place for this class of patients. It can not be said that all of the convict insane are any more troublesome than the ordinary insane, but the majority of them, as a class, are patients that are very much more troublesome and difficult to care for than the average insane man received from any respectable community in the State. Much of the trouble arises from the fact that many convicts, even though insane, retain their instinct to subvert the rules laid down for the regulation of all communities, and thus become disturbers and trouble-breeders in the wards of a hospital. In many cases their insanity is of a form that does not overcome their capability to plan, nor in any great measure does it blunt their cunning. Thus we are compelled to deal with a man whose instincts are to violate rules, whose one desire has been to evade restraint of all kinds, who thinks but little of the rights of others, and who is dominated with the one great idea of freedom. With such a class, it necessarily follows that the management of a hospital must exercise unusual care to prevent escape, must be on the alert at all times to prevent their efforts from making patients insubordinate and dissatisfied, and must constantly be on the watch to detect conspiracy and plotting. Many of them are malignerers and will take any risk to gain freedom. Under present circumstances they must of necessity be associated with the other patients, whom they are liable to harm. No hospital in this State is built sufficiently strong in doors and windows to hold a convict who is sane enough to really want to get out.

Being insane, it might be argued that they should have the same care and treatment as other insane, and that it is therefore wrong to classify them as criminals and attach to them in any way the stigma of crime where disease exists. Theoretically, possibly, the above is the view to take of them, but actually the criminal tendency persists after cure of the insanity, and we must recognize the complications and our remedial measures must be such as to best combat both the diseased mind and the original criminal instinct.

The most practical and economical way to treat the convict insane is to build for them, on the grounds of the Folsom State Prison, a proper asylum, to be under the control of the State Board of Prison Directors. They could be placed under the medical care of the resident physician of the prison and would have such treatment as their cases demanded. At Folsom, building material is convenient and labor is abundant, hence economy of construction. Food, bedding, etc., could be supplied from commissary of the prison, hence economy of maintenance.

We earnestly ask an appropriation of \$25,000 for an asylum for the convict insane.

WHAT PROVISION SHOULD BE MADE FOR THE STATE HOSPITALS.

At the present time there are 5,500 insane patients cared for in our State Hospitals, and there is an average annual increase of about 100 patients.

We have five State Hospitals supported by the State for the care of the insane, located as follows: three in the central, one in the northern, and one in the southern portion of the State. All of these hospitals, save the one in the north and that in the south, are completed up to the limit of the plan designed, and in some instances enlargements have been made on the original plan.

The Mendocino State Hospital has no hall for religious exercises and for the amusement and entertainment of patients. A building for this purpose, costing about \$30,000, is needed and should be built.

With the addition of another wing, the Southern California State Hospital will have been completed up to the original plan, so far as capacity for patients is concerned. It will also need an administration building in course of time, but the wing is the greater need.

To accommodate the present population of 5,500 people, the capacity of our present structures is taxed to the utmost, in fact, they are, without exception, crowded. The insane are always with us, they must be cared for; we may expect an average yearly increase of about one hundred patients, and some provision must be made for those that are bound to come.

What policy should the State pursue in providing for the future of our hospitals, in order to be in accord with the advancements that are being made in the care and treatment of the insane, and yet have in view at all times the welfare of the taxpayer?

Shall we build more large hospitals, shall we construct special separate institutions for the chronic insane, or shall we provide for the future on the grounds of existing institutions, by building cottages from time to time as needed?

Some of these questions have been disposed of by the force of public opinion. In 1884 an appropriation was made for an asylum for the chronic insane. The asylum was built, and four hundred chronic insane were sent to it; but public opinion was against the word "chronic," and forced a change in the law and made the institution, Agnews, a hospital for the reception of all classes.

It is clear, therefore, that no separate institution for the chronic insane will be supported willingly by the public.

It would not be wise to build new large hospitals, in the near future at least, for we have sufficient now and they are well distributed through-

out the State. There is one exception to that statement: we need a hospital for insane convicts; it is an urgent necessity that should be met and provided for.

Could we have a few small hospitals, for the treatment of acute recent cases only, located in some of our largest cities, like San Francisco, Oakland, and Los Angeles, we would take a step in advance that would be noteworthy. Such hospitals, located in the centers of population and near colleges given to the study of diseases, would afford opportunity for prompt, intelligent, and skilled treatment that, under present conditions, oftentimes is given too late to be of the greatest advantage. Patients should be admitted to them on the certificate of two physicians, and legal committal could wait on the progress of the case. It may be that public opinion is not ready for this innovation, but that it would work a great benefit and be a marked step forward can not be questioned. Additional provision for the insane must be provided in some way, and can be best and most economically done by the construction of cottages at existing institutions. Cottages offer cheap construction, do away to some extent with the indiscriminate mixing and association of the block plan now in vogue with us, and provide facilities for a proper classification of patients. All of our State Hospitals need better provision for the care of acute recent cases, and cottages properly equipped with a trained corps of nurses, with apparatus for hydrotherapy, and built for the class of cases that are to be treated in them, should be among the first provided. Too much skilled attention can not be given the acute recent case—here is where the fight is lost or won, and therefore every means should be provided for the struggle. The cottage is but little, if any more, expensive to maintain than the ward of a large building, and it offers so many advantages that the question need hardly be discussed.

In the way of immediate needs, Agnews should have a cottage for women; it will cost about \$30,000, and will accommodate 100 patients. This is larger capacity for a cottage than would ordinarily be recommended, but it makes a building similar to one already built for men, and therefore preserves uniformity, which is sometimes desirable.

The Southern California State Hospital needs a new wing to complete the original plan, or at least complete it so far as accommodation for patients is concerned. The wing will cost about \$60,000 and will accommodate 150 to 180 patients.

There are some other matters that should be brought to the attention of the Legislature. The Stockton State Hospital requires more land—it has absolute need for it. The hospital is located in the heart of a populous and growing city and has not enough land to keep a sufficient number of cows to provide milk for its patients. Good land can be

bought, at a reasonable price, near enough to the hospital to be available for farm and dairy, and should be purchased without delay, for land near Stockton is in demand and advancing in price.

One other necessity that should be met, is the enlargement of the water-supply at the Napa State Hospital. During the summer months this institution is very short of water, too short to keep the institution in a good sanitary condition. It is probable that the only reliable and permanent solution of the water question is in the construction of a stone dam in what is known as Kruse cañon, about a mile and a half from the hospital. It is hardly probable that the dam could be built for less than \$100,000, but with an initial appropriation to get in the foundation, much work could be done from the contingent fund of the hospital and the dam completed with a comparatively small appropriation.

Herewith are submitted the various amounts asked by the management of each hospital for support and salaries and wages for the next two years:

STOCKTON STATE HOSPITAL.

Support	\$215,000 00	
Salaries and Wages	200,000 00	
Total		\$415,000 00

NAPA STATE HOSPITAL.

Support	\$251,600 08	
Salaries and Wages	193,399 92	
Total		\$445,000 00

AGNEWS STATE HOSPITAL.

Support	\$175,000 00	
Salaries and Wages	140,000 00	
Total		\$315,000 00

MENDOCINO STATE HOSPITAL.

Support	\$139,830 00	
Salaries and Wages	90,120 00	
Total		\$229,950 00

SOUTHERN CALIFORNIA STATE HOSPITAL.

Support	\$190,000 00	
Salaries and Wages	110,000 00	
Total		\$300,000 00
Grand total		\$1,704,950 00

The Commission recommends that Article III of the Lunacy Law be amended to conform to the decisions made by the Supreme Court. Also, that Section 8 of Article II be amended in such a way that in place of "provisions at and from the supplies of the hospital" the medical

superintendent, physicians, and steward be allowed a definite sum, to be fixed by the Commission, from the support fund, and that these officers be allowed to purchase all food supplies in the open market or elsewhere, rendering itemized bills for their purchases, which must not exceed the sum fixed by the Commission.

Attention is called to the accompanying tables, which exhibit in detail the receipts and disbursements of the Contingent Funds of the various hospitals, and the balances on hand June 30, 1902.

They also show the expenditures from the different funds and the total expense of conducting the hospitals for the two years ending June 30, 1902, and the stock on hand at that date.

Reference is also made to the tables showing the value of products of farms and gardens, and the cost of maintaining them.

TABLE SHOWING THE DAILY AND YEARLY PER CAPITAS AND THE PURPOSES FOR WHICH THE MONEY WAS EXPENDED.
For the Year ending June 30, 1901.

	Salaries and Wages.	Provisions.	Stores.	Ordinary Repairs.	Farm and Grounds.	Clothing and Dry Goods.	Furniture and Bedding.	Books and Stationery.	Fuel and Light.	Medical supplies.	Managers' Per Diem.	Miscellaneous Expenses.	Total Per Capita.	Average Number Patients.
HOCKTOS--														
Yearly cost.....	\$95,705.44	\$59,205.80	\$5,353.99	\$3,515.25	\$1,422.59	\$10,207.98	\$2,037.59	\$295.23	\$10,922.01	\$2,508.49	\$1,531.00	\$2,053.18	\$194,758.56	
Daily per capita per patient.....	.163	.1008	.0091	.006	.0024	.0174	.0035	.0003	.0186	.0042	.0026	.0035	.3514	1,808.7
Yearly per capita per patient.....	59.50	36.81	3.33	2.19	.90	6.35	1.27	.12	6.80	1.56	.95	1.28	121.66	
SAPA--														
Yearly cost.....	91,104.32	55,238.47	4,032.26	3,133.80	2,508.79	9,012.18	1,090.05	203.30	21,374.52	1,840.28	2,368.00	930.04	195,966.01	
Daily per capita per patient.....	.17	.10	.0073	.0057	.0045	.0163	.002	.0003	.0386	.0033	.0043	.0017	.354	1,516
Yearly per capita per patient.....	62.07	36.44	2.66	2.07	1.65	5.55	.72	.13	14.10	1.22	1.58	.61	129.20	
AGRIW--														
Yearly cost.....	63,364.18	34,688.61	3,887.16	3,623.24	2,528.29	5,850.66	2,440.28	293.75	16,502.69	1,214.50	1,567.65	1,055.82	137,016.83	
Daily per capita per patient.....	.1752	.096	.0108	.01	.007	.0165	.0068	.0008	.0457	.0034	.0043	.0029	.3794	889.2
Yearly per capita per patient.....	63.95	35.07	3.93	3.66	2.56	6.02	2.47	.29	16.68	1.23	1.58	1.07	138.51	
WINDOCK--														
Yearly cost.....	39,281.61	25,251.21	2,808.98	3,583.17	2,979.64	4,036.55	1,046.36	190.46	8,081.57	1,108.08	2,456.00	1,763.00	93,183.63	
Daily per capita per patient.....	.1807	.1161	.013	.0165	.0137	.0185	.0048	.0009	.04	.0051	.0113	.0081	.4287	596.5
Yearly per capita per patient.....	65.96	42.40	4.71	6.02	5.00	6.78	1.76	.32	14.68	1.96	4.12	2.97	156.48	
Southern California--														
Yearly cost.....	45,824.31	27,535.16	3,163.45	3,737.69	3,328.08	5,160.21	2,161.00	694.80	10,821.49	1,398.06	2,235.45	2,853.03	108,910.73	
Daily per capita per patient.....	.192	.1153	.0132	.0156	.0139	.0216	.009	.003	.0453	.006	.0093	.012	.4562	654
Yearly per capita per patient.....	70.07	42.10	4.84	5.71	5.09	7.89	3.30	1.06	16.54	2.14	3.42	4.36	168.52	

For the Year ending June 30, 1902.

HOCKTOS--														
Yearly cost.....	\$96,363.63	\$61,680.45	\$5,331.59	\$4,107.45	\$2,420.16	\$7,361.98	\$2,630.84	\$313.60	\$7,519.42	\$2,574.08	\$1,729.95	\$1,961.11	\$105,994.26	
Daily per capita per patient.....	.1621	.1037	.009	.0103	.0041	.0124	.0044	.0005	.0125	.0043	.0029	.0033	.3296	1,629
Yearly per capita per patient.....	59.16	37.86	3.27	3.75	1.49	4.52	1.61	.19	4.62	1.68	1.06	1.20	120.31	
SAPA--														
Yearly cost.....	92,660.41	58,416.70	6,680.37	4,297.51	3,006.08	8,227.14	1,684.45	229.50	15,282.12	2,280.15	2,509.55	927.97	196,200.95	
Daily per capita per patient.....	.1662	.1046	.012	.0077	.0054	.0148	.003	.0004	.0274	.0041	.0045	.0017	.352	1,527
Yearly per capita per patient.....	60.68	38.26	4.38	2.81	1.97	5.39	1.10	.15	10.01	1.49	1.64	.60	128.48	
AGRIW--														
Yearly cost.....	63,400.36	39,490.91	3,815.03	5,689.05	2,580.88	5,471.27	2,129.82	359.58	12,367.95	1,241.31	1,754.85	1,135.63	139,507.24	
Daily per capita per patient.....	.1716	.1067	.0102	.0154	.007	.0148	.0058	.0009	.0334	.0035	.0048	.0031	.3773	1,013
Yearly per capita per patient.....	62.65	38.95	3.77	5.62	2.56	5.40	2.10	.35	12.21	1.26	1.73	1.12	137.71	
WINDOCK--														
Yearly cost.....	40,832.13	26,990.98	2,757.85	5,276.60	1,625.97	3,435.44	969.85	210.56	10,287.30	1,270.08	2,549.55	1,728.27	97,875.58	
Daily per capita per patient.....	.18	.119	.0121	.0232	.0071	.0151	.0042	.0009	.0453	.0054	.0112	.0076	.4311	622
Yearly per capita per patient.....	65.65	43.38	4.43	8.48	2.61	5.52	1.54	.34	16.54	1.98	4.10	2.78	157.35	
Southern California--														
Yearly cost.....	46,105.17	30,073.36	3,761.60	4,320.26	3,503.96	6,140.98	2,961.12	387.93	10,293.48	1,282.84	2,264.50	2,391.41	113,550.61	
Daily per capita per patient.....	.1771	.1154	.0145	.0166	.0134	.0215	.0113	.0015	.0305	.005	.0087	.0092	.4257	714
Yearly per capita per patient.....	64.64	42.12	5.30	6.05	4.91	8.60	4.15	.54	14.41	1.80	3.17	3.35	159.04	

TABLE SHOWING THE DISBURSEMENTS FROM THE CONTINGENT FUND FOR THE TWO YEARS ENDING JUNE 30, 1902.

Items.	Stockton.		Napa.		Agnews.		Mendocino.		Southern California.	
	1901.	1902.	1901.	1902.	1901.	1902.	1901.	1902.	1901.	1902.
Machinery, hardware, etc.	\$490 00	\$458 04	\$959 99	\$869 00	\$40 00	\$130 01	\$90 00	\$285 37		
Farm and grounds	1,230 37	1,532 53	1,839 54	878 86	14,507 84	9,667 57	3,032 50	1,171 36	\$4,852 02	
Buildings		934 37	636 00	407 71	366 11	2,610 01	2,481 32			
Furniture, bedding, crockery, etc.	740 89		8,925 29	1,011 98						
Labor on grounds, etc.			2,054 80	1,845 00						
Improvements and repairs	3,983 39	1,251 47	4,139 77	1,312 23	140 16	3,845 93	1,414 30	531 92	635 19	
Incidentals and miscellaneous	51 20	89 15	442 96	170 79	7 40		66 00	38 80		
Discharged patients and returned board										
Water, light, and heat	367 55	417 25	354 50	193 00	48 30	328 25	144 00	94 00	415 00	
Livestock	729 67	1,355 90		1,500 90		450 91		4,597 00	180 20	698 41
Advertising and printing				130 00		400 00				
Inspection and insurance of boilers				33 40						
Attorney fees			150 00		135 00					
Surgical instruments		88 91	402 06							
Clothing and dry goods	57 93		42 33	9 25						
Provisions and stores			73 45	129 65			385 30			
Fire apparatus and hose	120 00					442 25				
Oil-burning plant	173 53	366 62		5,399 50	33 14	834 00				
Shoe findings and leather	503 20	46 50								
Rent of land		50 00	60 00							
Purchase of land										
Pumping plant										
Brick chimney (female dept.)		2,322 70								
Telephones		120 00				161 25				
Painting buildings				3,442 85						
Deficiency, support 52d-fiscal year				354 32						
Totals	\$8,447 73	\$9,033 44	\$20,080 69	\$17,658 44	\$15,277 95	\$18,870 18	\$7,613 42	\$5,828 86	\$16,142 51	\$7,784 19

Statement Showing the Disbursements of the Five State Hospitals from the Contingent Fund from the Time Said Fund was Created by Law.

Items.	Stockton.	Napa.	Agnews.	Mendocino.	Southern California.
	From July 1, 1883, to July 1, 1902.	From July 1, 1883, to July 1, 1902.	From July 1, 1886, to July 1, 1902.	From July 1, 1894, to July 1, 1902.	From July 1, 1894, to July 1, 1902.
Machinery and hardware.....	\$8,174 85	\$22,772 11	\$189 27	\$39 49	\$597 31
Farm and grounds.....	20,178 05	18,548 79	4,734 29	90 00	4,990 65
Buildings.....	44,198 70	36,727 31	61,998 25	8,437 48	14,198 85
Furniture, bedding, crockery, etc.....	34,748 77	16,286 84	11,737 87	2,715 93	776 34
Labor on grounds, painting, plumbing, etc.....	566 93	50,194 35	94 30	-----	2,702 57
Rent of land, and purchase of real estate.....	10,043 60	630 00	7,185 75	-----	3,556 00
Interest and exchange.....	13,456 07	8,926 53	86 81	16 05	21 92
Improvement and repairs.....	52,082 96	42,692 96	5,178 72	2,289 26	6,533 08
Entertainment and religious exercises.....	2,089 58	3,843 65	16 00	195 03	1,531 20
Incidental and miscellaneous.....	11,528 32	4,898 62	11,830 58	2,363 82	2,556 63
Traveling expenses.....	3,960 40	1,837 45	522 30	193 65	1,043 80
Groceries, fruit, etc.....	2,305 19	3,488 97	451 95	17 50	1,125 61
Refunded board and discharged patients.....	1,185 05	1,002 71	1,129 05	645 85	2,112 30
Sewerage, water, light, and heat.....	39,594 89	23,356 14	6,879 00	12,708 46	16,978 97
Fire protection.....	3,077 82	6,264 00	4,905 25	385 30	727 12
Livestock.....	12,692 21	3,410 00	658 00	121 32	1,661 50
Telegraph and telephone.....	240 60	687 05	262 35	69 30	472 69
Books and stationery.....	-----	2,003 45	324 36	33 00	111 73
Freight and express.....	-----	623 35	6 00	-----	449 14
Advertising and printing.....	711 94	101 90	450 40	142 80	304 45
Inspection and insurance of boilers.....	555 00	1,007 81	135 00	-----	18 00
Attorney fees.....	688 25	1,180 20	57 50	112 50	387 50
Subsistence assistant physicians.....	1,630 00	-----	-----	-----	-----
Improvement of streets.....	14,540 20	-----	-----	-----	-----
Ice plant.....	-----	6,360 99	1,263 37	-----	2,180 00
Metallic file cases.....	-----	1,906 65	-----	-----	-----
Detective services.....	-----	465 25	-----	-----	-----
Orr's shortage(ex-Treasurer).....	1,890 95	-----	-----	-----	-----
Transfer of money.....	33 37	-----	-----	-----	-----
Tower clock.....	-----	-----	783 50	-----	-----
Deficiency (support).....	2,325 13	1,424 59	2,444 24	-----	-----
Revolving fund.....	200 00	-----	200 00	200 00	200 00
Surgical instruments.....	372 91	402 06	-----	-----	-----
Clothing and dry goods.....	81 18	51 58	-----	-----	-----
Reporter's fees in Buchanan case.....	-----	775 00	-----	-----	-----
Oil-burning plant.....	540 15	5,399 50	867 14	-----	-----
Brick chimney (female department).....	2,322 70	-----	-----	-----	-----
Painting buildings.....	-----	3,442 85	-----	-----	-----
Shoe shop.....	549 70	-----	-----	-----	-----
Totals.....	\$286,565 47	\$271,593 04	\$124,391 25	\$24,947 88	\$65,237 36

Recapitulation.

	Receipts.	Disbursements.	Balance on Hand.
Stockton.....	\$307,722 39	\$286,565 47	\$21,156 92
Napa.....	300,109 42	271,593 04	28,516 38
Agnews.....	144,324 27	124,391 25	19,933 02
Mendocino.....	33,017 36	30,776 74	2,240 62
Southern California.....	74,751 43	65,237 38	9,514 05
Grand totals.....	\$859,924 87	\$778,563 88	\$81,360 99

Table Showing the Receipts and Disbursements of the Contingent Fund for the Two Years ending June 30, 1902.

	Stockton.	Napa.	Agnews.	Mendocino.	Southern California.
Balance on hand July 1, 1900	\$12,402 11	\$26,726 83	\$15,547 36	\$6,074 91	\$8,863 29
Receipts for fifty-second fiscal year-----	13,832 52	19,078 30	17,221 95	4,296 19	11,339 99
Total receipts-----	\$26,234 63	\$45,805 13	\$32,769 31	\$10,371 10	\$20,203 28
Disbursements-----	8,447 73	20,080 69	15,277 95	7,613 42	16,142 51
Balance on hand July 1, 1901	\$17,786 90	\$25,724 44	\$17,491 36	\$2,757 68	\$4,060 77
Receipts for fifty-third fiscal year-----	12,403 46	20,450 38	21,311 84	5,311 80	13,237 47
Total receipts-----	\$30,190 36	\$46,174 82	\$38,803 20	\$8,069 48	\$17,298 24
Disbursements-----	9,033 44	17,658 44	18,870 18	5,828 86	7,784 19
Balance on hand July 1, 1902	\$21,156 92	\$28,516 38	\$19,933 02	\$2,240 62	\$9,514 05

Table Showing the Total Cost of the Five State Hospitals, with the Average Number of Patients and Stock on Hand, for the Two Years ending June 30, 1902.

FIFTY-SECOND FISCAL YEAR.

	Salaries	Support.	Contingent Fund.	Expenses Lunacy Com.	Total.	Stock on Hand.	No. Patients.
Stockton---	\$95,705 44	\$99,053 12	\$8,447 73	\$3,611 32	\$206,817 61	\$1,976 38	1,608.7
Napa-----	94,104 32	101,761 69	20,080 69	2,504 70	218,451 40	627 05	1,516
Agnews-----	63,264 18	73,752 65	15,277 95	4,052 89	156,347 67	3,052 81	989.2
Mendocino---	39,281 61.	53,902 02	7,613 42	2,953 46	103,750 51	4,201 58	595.5
So. Cal.----	45,824 31	63,086 42	16,142 51	2,994 82	128,048 06	1,116 74	654
Totals----	\$338,179 86	\$391,555 90	\$67,562 30	\$16,117 19	\$813,415 25	\$10,974 56	5,363.4

FIFTY-THIRD FISCAL YEAR.

	Salaries	Support.	Contingent Fund.	Expenses Lunacy Com.	Total.	Stock on Hand.	No. Patients.
Stockton---	\$96,363 63	\$99,630 63	\$9,033 44	\$4,177 65	\$209,205 35	\$2,015 26	1,629
Napa-----	92,660 41	103,540 54	17,658 44	4,164 29	218,023 68	2,324 15	1,527
Agnews-----	63,460 36	76,046 88	18,870 18	3,262 38	161,639 80	3,243 00	1,013
Mendocino---	40,832 13	57,043 45	5,828 86	2,420 37	106,124 81	3,368 73	622
So. Cal.----	46,155 17	67,401 44	7,784 19	2,702 70	124,043 50	3,543 94	714
Totals----	\$339,471 70	\$403,662 94	\$59,175 11	\$16,727 39	\$819,037 14	\$14,495 08	5,505

Table Showing Receipts and Disbursements of Farm, Garden, and Dairy, for the Fifty-second and Fifty-third Fiscal Years.

Hospital.	FIFTY-SECOND FISCAL YEAR.			FIFTY-THIRD FISCAL YEAR.		
	Receipts.	Disbursements.	Excess Receipts.	Receipts.	Disbursements.	Excess Receipts.
Stockton-----	\$10,935 24	\$4,584 02	\$6,351 22	\$12,751 10	\$5,332 85	\$7,418 25
Napa-----	15,897 17	10,447 33	5,449 84	16,993 33	10,406 74	6,586 59
Agnews-----	14,292 50	8,388 29	5,904 21	12,775 55	8,913 68	3,861 87
Mendocino---	3,999 38	4,355 97	*356 59	3,603 52	6,229 39	*2,625 87
So. California--	9,607 50	8,303 96	1,303 54	15,285 92	8,585 82	6,700 10
Totals-----	\$54,731 79	\$36,079 57	\$18,652 22	\$61,409 42	\$39,468 48	\$21,940 94

*Disbursements exceed receipts.

Table Showing Value of Food and Farm Products and Per Capita of Food Products, based on the above Table.

Hospital.	FIFTY-SECOND FISCAL YEAR.			FIFTY-THIRD FISCAL YEAR.		
	Food Supplies.	Hay and Grain.	Per Capita Food Supplies.	Food Supplies.	Hay and Grain.	Per Capita Food Supplies.
Stockton.....	\$8,655 24	\$2,280 00	.01474	\$9,166 10	\$3,585 00	.01552
Napa.....	13,838 73	2,058 44	.025	14,875 57	2,117 76	.0267
Agnews.....	12,332 90	1,316 00	.0341	11,496 30	1,167 25	.0311
Mendocino.....	3,615 38	384 00	.01663	2,703 52	900 00	.0119
So. California..	6,857 50	2,750 00	.02872	8,183 42	7,102 50	.0314
Totals.....	\$45,299 75	\$8,788 44	.02384	\$46,424 91	\$14,872 51	.02332

MOVEMENT OF PATIENTS IN THE STATE HOSPITALS FOR THE FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS.

A review of the following tables shows that the fifty-second fiscal year began with 5,276 patients in the State Hospitals, and for the period 1,219 patients were admitted and 46 escapes returned. For the same period 1,130 patients were discharged, died, or escaped, leaving, on June 30, 1901, 5,411 patients, or an increase of 135 for the year.

The year ending June 30, 1902, commenced with 5,411 patients. There were admitted 1,271, and 43 escapes returned. For the same period 1,231 patients were discharged, died, or escaped, leaving on hand June 30, 1902, 5,494 patients, or an increase of 83 for the year.

MOVEMENT OF PATIENTS DURING THE YEAR ENDING JUNE 30, 1901.

	Stockton.			Napa.			Agnews.			Mendocino.			Southern California.			Total.		
	Men	Women ..	Total	Men	Women ..	Total	Men	Women ..	Total	Men	Women ..	Total	Men	Women ..	Total	Men	Women ..	Total
Number of patients June 30, 1900 ..	1,062	531	1,593	868	639	1,507	585	419	1,004	407	149	556	402	214	616	3,324	1,952	5,276
Number returned escapes	5	0	5	13	0	13	6	0	6	2	0	2	20	0	20	46	0	46
Number admitted to June 30, 1901 ..	240	125	365	178	101	279	113	83	196	101	85	186	138	55	193	770	449	1,219
Number under care and treatment ..	1,307	656	1,963	1,059	740	1,799	704	502	1,206	510	234	744	560	269	829	4,140	2,401	6,541
Number discharged recovered	73	19	92	52	12	64	25	23	48	29	14	43	65	19	84	244	87	331
Number discharged improved	12	8	20	15	19	34	19	23	42	4	6	10	0	0	0	50	56	106
Number discharged unimproved and transferred	3	5	8	6	3	9	4	4	8	6	1	7	1	21	22	20	34	54
Number discharged not insane	4	1	5	1	0	1	1	0	1	0	1	1	2	0	2	8	2	10
Number died	133	63	196	110	47	157	57	33	90	46	18	64	34	11	45	380	172	552
Number escaped	19	0	19	20	0	20	8	0	8	8	0	8	22	0	22	77	0	77
Total died, discharged, escaped ..	244	96	340	204	81	285	114	83	197	93	40	133	124	51	175	779	351	1,130
Number remaining June 30, 1901 ..	1,063	560	1,623	855	659	1,514	590	419	1,009	417	194	611	436	218	654	3,363	2,048	5,411

MOVEMENT OF PATIENTS DURING THE YEAR ENDING JUNE 30, 1902.

	Stockton.			Napa.			Agnews.			Mendocino.			Southern California.			Total.		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Number patients June 30, 1901.....	1,063	560	1,623	855	659	1,514	590	419	1,009	417	194	611	436	218	654	3,363	2,048	5,411
Number returned escapes.....	0	0	0	14	0	14	7	0	7	1	0	1	20	1	21	42	1	43
Number admitted to June 30, 1902.	247	141	388	180	101	281	141	64	205	111	29	140	162	95	257	841	430	1,271
Number under care and treatment	1,310	701	2,011	1,049	760	1,809	738	483	1,221	529	223	752	618	314	932	4,246	2,479	6,725
Number discharged recovered.....	76	43	119	33	17	50	29	24	53	31	20	51	62	45	107	231	149	380
Number discharged improved	38	27	65	32	20	52	18	23	41	7	1	8	1	0	1	96	71	167
Number discharged unimproved..	7	9	16	4	1	5	2	3	5	3	3	6	0	0	0	16	16	32
Number discharged not insane	6	0	6	1	3	4	0	1	1	3	0	3	0	0	0	10	4	14
Number transferred.....	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	2	0	2
Number discharged, order of court	0	0	0	3	0	3	0	0	0	0	0	0	0	1	1	3	1	4
Number died	127	63	190	98	55	153	54	35	89	52	15	67	56	23	79	387	191	578
Number escaped	7	0	7	15	0	15	7	0	7	6	0	6	18	1	19	53	1	54
Total died, discharged, escaped.	261	142	403	187	96	283	110	86	196	102	39	141	138	70	208	798	433	1,231
Number remaining June 30, 1902...	1,049	559	1,608	862	664	1,526	628	397	1,025	427	184	611	480	244	724	3,448	2,046	5,494

NATIONALITY OF PATIENTS IN THE FIVE STATE HOSPITALS, JULY 1, 1902.

	Stockton.	Napa.	Agnews.	Mendocino.	Southern California.	Totals.
Africa	1	0	0	0	0	1
Armenia	1	0	0	0	0	1
Australia	6	14	3	0	5	28
Austro-Hungary	28	22	47	11	4	112
Belgium	3	1	1	0	2	7
Canada	48	36	28	15	24	151
Chili	4	5	1	0	0	10
China	102	34	26	28	14	204
Denmark	21	15	11	13	3	63
England	58	64	51	21	38	232
France	49	35	24	12	16	136
Germany	198	201	101	62	60	622
Greece	1	0	0	1	0	2
Guatemala	0	0	0	0	0	0
Holland	3	3	1	1	2	10
High Seas	0	0	1	0	0	1
India	1	2	0	1	1	5
Ireland	223	229	158	79	33	722
Italy	44	28	24	22	12	130
Japan	2	3	0	0	3	8
Mexico	21	12	12	4	18	67
New Zealand	1	1	0	0	0	2
Norway and Sweden ..	59	37	28	36	24	184
Peru	0	2	0	0	0	2
Portugal	16	14	15	5	2	52
Russia	27	21	25	32	10	115
Sandwich Islands ..	1	1	0	0	0	2
Scotland	19	22	19	2	3	65
South America	1	1	2	0	0	4
Spain	6	2	2	0	3	13
Switzerland	30	21	22	13	4	90
Turkey	1	1	0	0	0	2
Wales	0	5	2	1	1	9
West Indies	7	1	4	1	0	13
Western Isles	11	1	1	1	0	14
Totals	993	834	609	361	282	3,079
United States	611	654	393	237	430	2,325
Unknown	4	38	23	13	12	90
Grand totals	1,608	1,526	1,025	611	724	5,494

REPORT OF THE SECRETARY.

To the Honorable California State Commission in Lunacy:

GENTLEMEN: I have the honor of presenting to you my report for the fifty-second and fifty-third fiscal years.

The figures show something of a falling off in collections from those of previous years, which is due to several reasons, but principally to the fact that, as the work of the Commission in this line has progressed, since its creation, those claims for the support of the insane in State Hospitals which involved the least resistance were naturally those first collected. During the past two years a very large proportion of the claims of the Commission have been resisted by legal procedure, thus causing delay, and bringing about the accumulation of a number of important cases in the courts which can not be determined for an extended period of time. Another factor in reducing the amount of collections, and delaying others, has been the fact that the State lunacy law in some minor particulars has been successfully attacked in the courts, which has encouraged litigiously inclined guardians and relatives of patients to contest the claims. The Commission has been fortunate in having for its attorney, in George L. Hughes, Esq., a practitioner of learning and notable ability, who has successfully fought most of the issues raised in these proceedings, and has strengthened the statute by the decisions he has secured. The secretaries of the Superintendents of the various State Hospitals have of recent years done good and efficient service in increasing the receipts of the Contingent Fund, and as a result the claims referred to this Commission have become largely those involving contentious resistance.

I am, however, decidedly of the opinion that if the statute under which the Commission works is strengthened by the adoption of methods of procedure which your attorney has under consideration, the receipts can be largely increased; but to bring about this condition, besides the minor legal changes in the law required, it will be necessary to adopt a systematic method by which the hospital authorities and the Commission will work together in this department, in place of the rather haphazard present manner of procedure.

The constantly and unavoidably increasing cost of maintaining the

State Hospitals forms now, and will long continue to be, an economic question of menacing proportions. If your honorable body secures the legislative aid required to remedy the few existing defects in the law, there is no question but what the receipts of the Contingent Funds could be largely increased, and further, by the strict enforcement of the spirit of the present law, which undoubtedly is that the State Hospitals are primarily for the "poor and indigent," and that all other classes must pay for their maintenance, the taxpayers of the State would be relieved from a great burden.

STATEMENT OF COLLECTIONS.

Fifty-second Fiscal Year.

Payments made to the Commission:

Stockton	\$2,228 98	
Napa	1,714 19	
Agnews	454 50	
Mendocino	746 47	
Southern California	995 00	
		<u>\$6,139 14</u>

Payments made to hospitals as result of Commission's efforts:

Stockton	\$1,200 00	
Napa	1,608 50	
Agnews	460 00	
Mendocino	97 00	
Southern California	1,625 00	
		<u>4,990 50</u>

Collection of transportation charges	<u>1,723 20</u>
--	-----------------

Total collections	<u>\$12,852 84</u>
-------------------------	--------------------

Fifty-third Fiscal Year.

Payments made to the Commission:

Stockton	\$954 69	
Napa	3,605 60	
Agnews	1,421 99	
Mendocino	1,679 50	
Southern California	1,894 00	
		<u>\$9,555 78</u>

Payments to hospitals as result of Commission's efforts:

Stockton	\$704 65	
Napa	1,289 20	
Agnews	926 00	
Mendocino	47 50	
Southern California	1,366 70	
		<u>4,334 05</u>

Collection of transportation charges	<u>2,114 95</u>
--	-----------------

Collection of county charges	<u>439 80</u>
------------------------------------	---------------

Total collections	<u>\$16,444 58</u>
-------------------------	--------------------

Table Showing Amount of Money Collected Since Organization of Commission (April 29, 1897) to and Including June 30, 1902.

	49th Fiscal Year.	50th Fiscal Year.	51st Fiscal Year.	52d Fiscal Year.	53d Fiscal Year.	Totals.
Account board of patients—						
Stockton	\$755 00	\$2,065 87	\$4,223 57	\$3,428 98	\$1,659 34	\$12,132 76
Napa	2,258 51	5,878 82	10,200 02	3,322 69	4,894 80	26,554 84
Agnews	308 00	2,316 29	791 00	914 50	2,347 99	6,677 78
Mendocino	165 00	660 75	1,141 41	843 47	1,727 00	4,537 63
Southern Cal.			2,319 60	2,620 00	3,260 70	8,200 30
	\$3,486 51	\$10,921 73	\$18,675 60	\$11,129 64	\$13,889 83	\$58,103 31
Transp'on account	881 50	1,170 81	1,623 97	1,723 20	2,114 95	7,514 43
County charges ...	248 75	289 85	156 50		439 80	1,134 90
Totals	\$4,616 76	\$12,382 39	\$20,456 07	\$12,852 84	\$16,444 58	\$66,752 64

FINANCIAL STATEMENT.

Amount Expended by the Commission during the Fifty-second Fiscal Year, ending June 30, 1901.

Traveling expenses.....	\$1,339 48
Postage and box rent.....	142 00
Telegraphing.....	22 34
Telephoning	212 80
Expressage.....	18 82
Payroll (salaries of employés).....	14,052 60
Typewriting.....	65 00
Miscellaneous	49 40
Ice	31 00
Advertising	123 75
Press clippings.....	36 00
Towel service.....	12 00
Rent of filter	12 00
Total	\$16,117 19

STATE OF CALIFORNIA, }
County of Sacramento. } ss.

Otheman Stevens, Secretary of the State Commission in Lunacy, being first duly sworn, deposes and says that the above financial statement is correct.

OTHEMAN STEVENS,
Secretary State Commission in Lunacy.

Subscribed and sworn to before me, this 10th day of October, 1902.

P. H. McGRATH,
Assistant Secretary State Board of Examiners.

FINANCIAL STATEMENT.

Amount Expended by the Commission during the Fifty-third Fiscal Year,
ending June 30, 1902.

Traveling expenses.....	\$1,795 40
Postage and box rent	132 50
Telegraphing.....	12 79
Telephoning	193 75
Expressage.....	26 70
Ice	30 50
Payroll (salaries of employés).....	14,235 55
Typewriting.....	20 60
Miscellaneous	24 85
Advertising	172 00
Press clippings.....	36 00
Towel service.....	12 00
Filter.....	13 00
Rubber stamps.....	21 75
Total	<u>\$16,727 39</u>

STATE OF CALIFORNIA, }
County of Sacramento. } ss.

Otheman Stevens, Secretary of the State Commission in Lunacy, being first duly sworn, deposes and says that the above financial statement is correct.

OTHEMAN STEVENS,
Secretary State Commission in Lunacy.

Subscribed and sworn to before me, this 10th day of October, 1902.

P. H. McGRATH,
Assistant Secretary State Board of Examiners.

Respectfully submitted.

OTHEMAN STEVENS,
Secretary of State Commission in Lunacy.

October 14, 1902.

REPORT OF ATTORNEY.

To the Honorable State Commission in Lunacy:

GENTLEMEN: I herewith transmit my report of this office for the past two years ending June 30, 1902, which, for convenience, I have grouped under the following subjects: Suits pending; collections on account of suits brought; collections in probate proceedings, etc.; collections for transportation charges, etc.; amendments suggested.

SUITS PENDING.

(Suits against counties for support of criminal insane.)

Stockton State Hospital vs. Yolo County, in the Superior Court of Yolo County.

Stockton State Hospital vs. San Bernardino County, in the Superior Court of San Bernardino County.

These cases should be dismissed, as the persons for whose support actions were brought were not committed under provisions of the Penal Code, and counties are not liable under Section 1373, Penal Code.

Napa State Hospital vs. Yuba County, in the Superior Court of Yuba County; three cases; third case pending. In the first two actions the Superior Court sustained the demurrers to the complaints without leave to amend. Appeals have been taken to the Supreme Court, briefs filed, and appeals submitted.

Napa State Hospital vs. Solano County, in the Superior Court of Solano County; three cases. First case pending on demurrer to answer; second and third cases, complaints filed and summons issued, but not served.

Napa State Hospital vs. Ventura County, in the Superior Court of Ventura County; two cases. Complaints were filed, and summons issued but not served.

In the Superior Court of San Francisco:

Action commenced by Attorney-General Fitzgerald:

64027. Napa State Hospital vs. City and County of San Francisco.

Actions commenced by Attorney-General Ford:

68096. Napa State Hospital vs. City and County of San Francisco.

68097. Napa State Hospital vs. City and County of San Francisco.

68099. Napa State Hospital vs. City and County of San Francisco.

68100. Napa State Hospital vs. City and County of San Francisco.

68101. Napa State Hospital vs. City and County of San Francisco.

- 68102. Napa State Hospital vs. City and County of San Francisco.
- 68105. Mendocino State Hospital vs. City and County of San Francisco.
- 68106. Mendocino State Hospital vs. City and County of San Francisco.
- 68107. Mendocino State Hospital vs. City and County of San Francisco.
- 68110. Agnews State Hospital vs. City and County of San Francisco.
- 68111. Agnews State Hospital vs. City and County of San Francisco.
- 68112. Agnews State Hospital vs. City and County of San Francisco.
- 68113. Stockton State Hospital vs. City and County of San Francisco.
- 68114. Stockton State Hospital vs. City and County of San Francisco.
- 68115. Stockton State Hospital vs. City and County of San Francisco.
- 68116. Stockton State Hospital vs. City and County of San Francisco.
- 68117. Stockton State Hospital vs. City and County of San Francisco.
- 68118. Stockton State Hospital vs. City and County of San Francisco.

In these cases the hospitals have no claims which can be enforced, as the persons for whose support actions were brought were not committed under the provisions of the Penal Code, and the defendant is not liable, under the provisions of Section 1373, Penal Code. Actions should be dismissed.

In the following cases suits were brought in the Superior Court when action should have been brought in the Justice's Court:

Actions brought by Attorney-General Ford:

- 68103. Mendocino State Hospital vs. City and County of San Francisco.
- 68104. Mendocino State Hospital vs. City and County of San Francisco.
- 68111. Agnews State Hospital vs. City and County of San Francisco.

In the following cases actions were properly brought:

Superior Court.

Action brought by Attorney-General Fitzgerald:

- 64028. Napa State Hospital vs. City and County of San Francisco.

Actions brought by Attorney-General Ford:

- 68098. Napa State Hospital vs. City and County of San Francisco.
- 68108. Mendocino State Hospital vs. City and County of San Francisco.
- 68109. Agnews State Hospital vs. City and County of San Francisco.

Actions brought by Attorney for Commission:

- 76935. Napa State Hospital vs. City and County of San Francisco.
- 76936. Mendocino State Hospital vs. City and County of San Francisco.
- 76937. Agnews State Hospital vs. City and County of San Francisco.

Justice's Court.

- 25683. Mendocino State Hospital vs. City and County of San Francisco.
- 25684. Mendocino State Hospital vs. City and County of San Francisco.
- 25685. Mendocino State Hospital vs. City and County of San Francisco.

Action brought by Attorney for Commission:

- 25686. Mendocino State Hospital vs. City and County of San Francisco.

In cases Nos. 64028, 68098, 68108, 68109, 76935, 76936, 76937, Superior Court, and Nos. 25683, 25684 and 25685, Justice's Court, the cases are at issue and will be tried very shortly. Judgment will be in favor of the hospitals for such amounts as are not barred by the statute of limitations.

In case No. 25686, Justice's Court, there is no claim, as person for whose support action was brought was not committed under provisions of the Penal Code.

There are now pending in the various Superior Courts of the State thirty cases for the support of insane persons at State Hospitals. Several cases were brought before the decision in the case of *Napa State Hospital vs. Flaherty*, but in view of the decision in that case prosecution would be futile. In some cases there is not sufficient estate or persons pecuniarily liable to justify further proceeding. In the remainder of the cases actions were brought merely to prevent statute of limitations from running during negotiations for settlement or for the purpose of ascertaining if there is any estate or persons liable.

COLLECTIONS MADE.

Collections made on account of suits brought, \$4,065.50. There are, in addition, a number of suits pending in which payments will be made as soon as the estates of the insane defendants can be put in such shape as to permit adjustment of the claims of the hospitals.

Collections for support made in probate proceedings, etc., \$6,057.89.

Transportation charges collected, \$549.10.

Claims aggregating the sum of \$525.00 were allowed by administrators of estates of deceased patients, and will be paid in due course of administration.

In addition to the foregoing collections many matters have been referred to the Attorney for the Commission, in which payments were not made to him but to the Commission, or to the State Hospitals; such settlements were made without legal proceedings.

Many matters referred to the Attorney have not resulted in payment, for the reason that investigation has disclosed that either there were no estates or persons liable, or the cases were such that conditions did not justify proceedings. Each matter so referred has required more or less time to investigate.

Besides the work above reported, the Attorney has from time to time furnished many written opinions on questions presented. Some questions have not required much research or time to answer, while others have involved a great deal of study and examination of the reports and statutes. From time to time the Attorney has given verbal advice as required.

As the work of the Attorney covers every county in the State, correspondence has been no small factor in the work.

SUGGESTED AMENDMENTS TO THE INSANITY LAW.

In closing, I desire to call attention to the pressing need of a revision of the present Insanity Law of the State.

The present Insanity Law went into effect March 31, 1897. It was a radical departure from the former system of laws covering the subject

of insanity and the institutions for the treatment of the insane in this State. Besides introducing new features into the administration of the State institutions, the law itself has many crudities, is very ambiguous as to many matters of importance, and in many instances is deficient in provisions necessary to a satisfactory administration of many important features of the law.

The most striking defect in the present law is contained in the provisions relating to the commitment of insane persons to the State Hospitals. This defect was shown in the case of *Ex parte Lambert*, 134 Cal. 626, a case of habeas corpus appealed from Solano County and decided December 3, 1901. In this case, the Supreme Court decided that the provisions of the law, by which a person is adjudicated insane and committed to a State Hospital, are unconstitutional, on the grounds that under the procedure provided, a person may be adjudged insane and committed to a State Hospital without a notice and hearing on the charge of insanity. The decision of the Supreme Court was so sweeping on the points involved that it is very doubtful if there ever was in this State any adequate or valid procedure by which a person could be found insane and committed to a State institution. The present law should, therefore, be amended by the next Legislature so as to provide the necessary procedure.

All the laws of the State relating to the State asylums and hospitals contain provisions providing for payment for the support of patients other than poor and indigent at the institutions. The statutes prior to the enactment of the present law contained provisions for the enforcement of these liabilities. The Supreme Court, however, in the case of *Napa State Hospital vs. Flaherty*, October 11, 1902, 134 Cal. 315, and in the case of *Ex parte Lambert*, above cited, decided that the provisions of former laws were repealed by the law of 1897. The decision in the Flaherty case wiped out all liabilities created by former laws, except such as might exist at common law or under the provisions of the general laws of the State. The liabilities that might now be said to be the only ones in existence are as follows:

1. When a person has sufficient property of his own to pay for his support at a State hospital;
2. Husband for wife, or wife for husband, when pecuniarily able to pay;
3. Parents for minor children, when pecuniarily able;
4. Children for parents, when pecuniarily able.

The largest number of cases arise under the first two classes. That the liabilities exist independent of the Insanity Law was decided by the Supreme Court in the following case: *Estate of Yturburru*, 134 Cal. 567.

In view of the fact that the Supreme Court has practically decided (December 6, 1901) that there has never been a legal method of adjudg-

ing the question of insanity, it necessarily follows that these liabilities can be enforced in the absence of a valid commitment.

The Legislature should, therefore, make proper provision defining what liabilities should be imposed and the necessary procedure for its enforcement.

Prior to December 6, 1901, one of the methods used in the collection of claims due for support at State Hospitals was by citation of guardians of patients in the guardianship proceedings of such persons. This method was much more expeditious and satisfactory than by suit. But the Supreme Court, in the case of *Estate of Breslin*, decided December 6, 1901, held that a Superior Court sitting as a Probate Court had no jurisdiction to adjudicate a contested claim; that the proper remedy was by a civil action. I suggest that the law be amended so as to give the Probate Court the right to pass upon these claims in the same manner as was formerly pursued.

The law should also be amended so as to fix a uniform rate in all of the hospitals, but giving the proper authorities power to reduce the rate, or remit it altogether when circumstances justify.

The law should also be amended so as to clearly define the methods by which officers and employes may be appointed and removed at State Hospitals. The present law is somewhat ambiguous in its provisions.

The law should also be amended so as to define more clearly the powers and duties of the Lunacy Commission and of the Board of Managers, considered separately or with regard to each other.

The law should also be amended so as to give the Commission greater authority over private institutions for the insane.

Provision should also be made for the deportation of non-resident insane.

The whole law itself is full of minor defects, which are prolific in causing embarrassment in carrying it into effect.

In conclusion, I desire to thank the Commission and its most efficient Secretary, Mr. Otheman Stevens, for their assistance and coöperation in all matters relating to my department.

Respectfully submitted.

GEORGE L. HUGHES,
Attorney State Commission in Lunacy.

September 15, 1902.

THE NUMBER OF INSANE IN CALIFORNIA.

To the State Commission in Lunacy:

GENTLEMEN: It has been believed for a long time that the proportion of the insane to the population in California was large. Possibly it is not larger than might be expected under the circumstances, but the fact remains that, so far as numbers go, it is large.

Two years ago, with a view of discussing this question, I requested the Medical Superintendents of the State Hospitals for the Insane to write their views on the subject of the causes contributing to the prevalence of insanity in California for our report, believing that such a series of papers might be of general interest. The request made was not fully complied with, and of the papers sent in one has already been published in the last report of the State Board of Health. The paper which I submit below from Dr. Asa Clark, Medical Superintendent of the Stockton State Hospital, is written by a man who has been connected with the care and treatment of the insane in California for between thirty and forty years. Dr. Clark is a skilled observer, has knowledge of past and existing conditions in our State, and his opinions are entitled to the most respectful attention:

To the Commission in Lunacy:

GENTLEMEN: From the question propounded to me by your honorable body through General Superintendent Hatch, "What are the causes promotive of the large insane population of California?" it is evident that you share in the general impression that we of California are burdened with an insane population out of proportion to that of other like communities.

The census of 1900 not being available, I think that it will be admitted that sufficient evidence is not at hand to determine the question conclusively; but if it should finally appear that our insane population is somewhat in excess, and at the same time it should appear that, from geographical position and other reasons, such a condition might naturally be expected and really could not be avoided without bringing discredit upon ourselves, then, of course, intensity of interest in the question and pressure and anxiety connected therewith would, in great measure, abate. Considering the matter from a practical standpoint, it must be borne in mind that California is situated at the terminus of several transcontinental railroads; that upon these roads are constantly coming great numbers of people, many of them of roving dispositions with unstable nerve organizations and with barely sufficient money to land them in California. Necessarily disappointment awaits many, and when the crushing influence of poverty overtakes them, the mind gives way and they inevitably become wards of the State. It must also be noted that San Francisco is to the Pacific Coast what New York is to the Atlantic. That geographical position is an important factor in computation and comparison is indicated by the fact that the census of 1890 shows the proportion of the insane to the sane in New York and in California (which States are similarly situated geographically) was almost identical, there being a difference of only two in the million.

With the exception of the geographical element referred to above, the writer believes that there are rather less than more causes of insanity in California than in most other States. Surely, our climatic conditions are more favorable, the necessities of life are more easily obtained, and the people of California are fully equal to any in charity and kindly feeling for the poor and unfortunate.

The principal primary cause of insanity is the same in California as elsewhere, neither more mysterious nor more potent; it dates far back, it is persistent, it is cumulative. Of course, I can only refer to heredity. In olden times the insane were usually either killed outright, under the supposition that they were possessed of the devil, were witches or heretics, or else they were chained and allowed to perish from abuse and starvation; consequently they never accumulated and more seldom left offspring. It is to a change of attitude, feeling, and sentiment of the people toward the insane, without corresponding caution in the selection of husband and wife, that we must attribute their vast increase as compared with former times. This may be well illustrated by two representative facts taken almost at random: First, "that not until 1744 was the first law enacted in England relating to the insane"; second, "that in 1852, long after Illinois had become a populous State containing several important cities, her first insane asylum was opened." The English law referred to, simply provided, in effect, that "insane persons might be chained in some suitable place so long as might be thought necessary." The simplicity of this law and the lateness of its appearance is sufficient evidence that well up to the beginning of the nineteenth century England could have experienced but little inconvenience from her insane. In these days, such a population as Illinois contained in 1852 could not exist without at least one large insane asylum. What has happened in England since 1744 and in Illinois since 1852 has had counterparts the world over. While the general population has vastly increased, the insane have increased in a manifold ratio.

Consequent upon a discontinuance of the atrocious cruelties which, to a certain extent, eliminated the insane, has appeared perhaps the most appalling phenomenon in the history of our race: thousands upon thousands of dangerous lunatics are with us, and millions upon millions of money are required for the protection of society and for the support of these more than useless unfortunates. Bad and deplorable as these conditions seem, civilization must and will tolerate but one way of meeting them. The burden is one of the penalties of civilization, and civilization will see that it is patiently and manfully borne, until humanity, science, and the education of the people afford relief.

As far as California is concerned, she may justly be proud of the attitude assumed and persistently maintained since the beginning of our State government up to the present time; she is especially fortunate in never having been inveigled into any of the county-care schemes which have been the bane and disgrace of some of the older States. Let us take warning from such errors and never depart from State care unmixed.

So much for the past; but what of the future? Is not the ever deepening, expanding source from which comes this stream of living death the real object of supreme interest? What can be done with this lurking, merciless potency awaiting to doom the countless unborn? It will be claimed that through unaided evolutionary processes such changes will be wrought that finally it may truthfully be said that all men are born equal. If we admit this, it must still be remembered that as "the mills of the Gods grind exceedingly fine," so evolutionary processes are exceedingly slow; and as these movements must be especially along educational lines, it would seem the imperative duty, not only of the alienist and physician, but also of all enlightened people, to facilitate and stimulate the work of nature as much as possible. That such efforts in the interest of humanity, in most cases, will be a thankless task is likely; but this should not deter. It is an easy and pleasing thing for the physician to treat the ills and wounds of the ailing; for this he receives thanks and fees; but when, from the highest sense of duty he warns his generous and gracious client against a contemplated marriage because of the insanity of a great grandmother, as well as of some mental and nervous peculiarity on the part of his client, sentiment and conditions immediately change, and the physician will find his advice scorned and will be fortunate if he escapes with simply a breach of friendship.

Barring the influence of toxics and traumatism (common predisposing and exciting causes in California as elsewhere), insanity seldom, if ever, supervenes upon good

heredity; but unfortunately intoxication by alcohol, nicotine, opium, and other narcotics is so prevalent as to compete strongly with bad heredity as a source of supply. Nerve degeneracy, however induced, is almost sure to reach the offspring; consequently, the child of the drunkard is in the same category as the child of the lunatic. Hence, any barrel of whisky is liable to become the well-spring of a new stream of neurasthenia. Bad heredity, intemperance, and poverty are the things we have to fight. Good example of the strong, humanity, and well-timed instruction and advice are our most effective weapons. So far, denunciation and legislation have not met with hoped-for results. Those who can most successfully inculcate nature's laws relating to heredity and at the same time accomplish the most in the interest of good morals, are the leading factors in the battle for the mental integrity of the race. In the building of a family the first and most important question is as to the nerve stability of the builders. If this is satisfactory, all is well; as with a house founded upon a rock, it will stand. But if there is nerve degeneracy in the builders, as with the house built upon the sand, it will fall; and great will be the fall thereof.

ASA CLARK, M.D.,
Medical Superintendent of the Stockton State Hospital.

Supplementing Dr. Clark's report, it seems proper to discuss the matter to some extent upon the lines laid out by him. It is of some importance to discuss the number of insane in our hospitals, and it is of still more importance to consider the subject of the number of our people that are yearly becoming insane. The purpose of the remarks to follow is not so much to give exact figures on the insane, as it is to illustrate the conditions existing, in the States hereinafter to be mentioned, that tend to make insanity more or less common. The figures given are correct for the population of and admissions to the various State Hospitals, but in calculations based on these figures some patients are included that would not be counted if the information desired could be obtained from the printed reports. It must further be understood that the figures to be given are not put forward as representing all the insane in any of the States considered.

In States making ample provision for their insane, as do New York, Iowa, and California, the number of insane committed to the State Hospitals or asylums may be fairly said to be almost a perfect index of the tendency to insanity in those States and of the conditions contributing to greater or less numbers. The States of New York and Iowa will be used in these lines therefore for the purpose of illustrating certain points referred to by Dr. Clark.

It is not intended that it should be understood from the above remarks that the majority of our States do not make just as good and as ample provision for their insane as New York, Iowa, or California, but for convenience in getting at the records of their work and from the fact that in each of the States mentioned the policy is one of State care only, New York and Iowa will be referred to. It should further be understood that some insane are still admitted to county houses in Iowa and are not included in the figures to be given.

There were in the State Hospitals of New York, in the year 1900, 22,832 insane, or one insane to every three hundred and eighteen of the general population of that State.

In Iowa, at the same period, there was one insane person in the hospitals for seven hundred and sixty-seven of the population.

In the California State Hospitals, on June 30, 1900, there were 5,276 insane, or one to every two hundred and eighty-one of the population.

The number of insane under care at any given period is misleading as an indication of the prevalence to insanity in a community. The number remaining in hospitals at any time is influenced largely by the amount of provision that has been made in that State for the care of the insane by the erection of buildings and their equipment; it is also influenced by the location of hospitals or asylums near points where population is large, and by the liberality of the laws governing the commitment of the insane. Placing all institutions under State care leads to accuracy and publicity of registration, and, therefore, apparent increase. Finally, the excess of admissions over deaths and discharges leads to an accumulation of numbers.

Of greater importance than the number of insane under care at any given period, is the number of occurring cases, the proportion of new cases, the present tendency to insanity. From this latter point of view the question will be considered. The figures on population in the following lines are taken from the United States census of 1900, and are therefore as nearly correct as can be obtained. For the year ending in 1900, in New York, for every 10,000 of its population there were committed as insane 6.43 persons. For the same period in Iowa there were committed 5 insane persons for every 10,000 of the population. In California, same year, 8.18 persons were committed for every 10,000 of the State's population.

It is evident from the above that our proportion of occurring cases is high. Why is it high? Dr. Clark, in his paper, has clearly set forth some of the reasons, and it is my purpose to elaborate to some extent the points made by him.

In considering the population of States we find that it is made up of persons born in the State, of persons born in other States, and of persons born in other countries, foreign born—all making the particular State under consideration their home.

In the following tables I have endeavored to show the relative proportion of these different elements of the population in the three States under consideration, and the number of insane committed during the year from each of the different classes of the population. The calculations are based on each 10,000 of the general population, and the admissions were for the year ending in 1900.

Each 10,000 of the general population of the following States was made up:

New York: Born in New York, 6,650; in other States, 735; foreign born, 2,615.
Iowa: Born in Iowa, 5,907; in other States, 2,722; foreign born, 1,371.
California: Born in California, 4,453; in other States, 3,074; foreign born, 2,473.

In each 10,000 of the general population the various classes of the population supplied insane as given below:

New York: Born in New York and other States, 3.95; foreign born, 2.94.
Iowa: Born in Iowa, 1.71; in other States, 1.80; foreign born, 1.20.
California: Born in California, 1.51; in other States, 2.12; foreign born, 3.67.

NOTE.—New York figures include 354 transfers that can not be segregated.

Carrying the calculation a little farther, it will be found that each 10,000 of three different classes supply insane as follows:

New York: Born in New York and other States, 5.94; foreign born, 11.27.
Iowa: Born in Iowa, 2.88; in other States, 6.60; foreign born, 8.70.
California: Born in California, 3.39; in other States, 11.90; foreign born, 14.85.

The figures given in the above tables are instructive as showing the make-up of the population of the different States in the first table, while in the second is brought out the small proportion of people born in California becoming insane as compared to the other classes of the population.

The third table shows the relative liability of the different classes to become insane; and, while there is a decided difference in all the States, the discrepancy between the classes is greatest in California. The results are in keeping with the general statement made by Dr. Clark, that our State receives large numbers of immigrants of unstable nerve organizations, who break down under the stress of circumstances and become inmates of our hospitals.

The census tables show that California has a larger percentage of people between the ages of twenty-five and fifty, the age period at which insanity is most common, than either New York or Iowa, and also that we have a larger percentage of commitments between twenty-five and fifty than either of those States.

We also have a larger proportion of single men in our community than either of the other States considered, while our percentage of commitments shows a decided excess of single men becoming insane over either New York or Iowa. The average percentages of males over the age of fifteen in the United States are, single 40.4, married 54.2; while in California for males over fifteen the percentages are, single 48.8, married 44.9.

The excess of people at the age period between twenty-five and fifty, and the excess of single men in our State and becoming insane are confirmatory of the assertion that it is among the newer elements of our

population that we find the largest proportion of our insane, for the majority of persons migrating from one State to another in the hope of bettering their circumstances or improving health conditions are above the age of twenty-five and under fifty.

The conditions may be further exemplified by the statement that out of 251 admissions to the hospitals in 1900, of persons who had previously been inmates of institutions for the insane in this or other States, but 51 were born in California, while 195 were either natives of other States or foreign born, the rest being of unknown birth. Why should those born in other States and the foreign born become insane to a greater extent than our own people? These conditions probably exist in nearly all States no older than ours and having a fairly large immigration, but the discrepancy between the classes is larger here than elsewhere, and why is it?

As Dr. Clark says, there is nothing in the climate conducive to insanity. Our habits are probably not materially worse than those of New York and Iowa. We don't drink alcoholic liquors to any greater excess, or at least our proportion of alcoholic causes of insanity is not larger than the average of other states and countries. In forms of insanity following the excessive use of drugs, opium, morphine, etc., we had in the two years ending in 1900 more cases than Iowa in ten years, and nearly three times as many as New York in the two years corresponding to ours.

Where from, then, does the influence come that seems to create the tendency to insanity among those from other states and countries in a greater degree than among the natives of this State? It comes originally from the same source that to a great extent brings about insanity in those of our own State: from an inborn defect in the make-up. This original defect or weakness is made more active, is assisted in outward expression, by conditions which affect newcomers in a country to a greater degree than those who have well-settled homes here with family ties and who are surrounded by friends. These conditions are no more common, nor as much so, in California as elsewhere, but they have to be met even here. They are hard luck, failure to succeed, poverty, separation from home and family ties, and ill health. Some of these contributing causes are more noticeable here, because so many come to this State in search of health who have been physically or nervously weak for years and hope here to find the panacea for their broken health. Others come here seeking new channels of industry, new fields in which to seek fortune. Many are of small means, are not successful in gaining health, or make a failure in their industrial pursuit and become discouraged,—they want a change, but they can't get it, for west of us is the ocean, and east of us the home, too far to go to, so perforce they remain with us until mental breakdown comes.

More recently the immigration to California is changing to an extent, in that we are receiving fewer single men and more married men with families, who have carefully considered the change of residence and who come here with definite plans and purposes, and the means to carry them out.

Our State has been exceedingly liberal in providing accommodations for its insane, and has occasionally been in advance of its requirements. It has been so liberal in taking upon itself the expense of taking a mentally diseased person from a county seat to the State Hospital free of all expense to the county, and maintaining such person thereafter free of expense to the county, that it has, in fact, encouraged the committal of a class of cases from almshouses and county hospitals who, though mentally incapacitated for self-support, are exceedingly doubtful cases for the restraint of an insane asylum. It has accepted in its hospitals the very old and the very young, epileptics of all grades, cases of pure senility. The policy has been to care for the insane entirely at the expense of the State. The laws governing the committal of patients have been liberal, and their interpretation often still more liberal. The main question regarding committal has been, shall the individual, whatever the cause of his mental derangement, and whatever the character, be sequestered for the protection of the community and himself? This liberal policy has aided in filling our hospitals, but the defective mentally must be maintained in safety and comfort, and the State has taken upon itself the task, and is doing it well.

F. W. HATCH, M.D.,
General Superintendent of State Hospitals.

CONSIDERATION OF ONE YEAR'S ADMISSIONS.

Believing that a review of the year's admissions to the hospitals for the insane might be of some general and medical interest, an effort has been made in this article to present a few of the more salient points of interest in connection with the history of those becoming insane during the year. No special attempt has been made to study the admissions from a scientific standpoint, as it would be useless to place much reliance on a consideration of one year's work.

During the fiscal year ending June 30, 1902, there were admitted to the hospitals 1,271 persons. Of this number, 8 were transfers from one hospital to another, and are therefore dropped from further consideration. Fourteen of our admissions came from the United States naval station at Mare Island, having been returned to that point from the Philippine Islands.

It should be noted that in calculating percentages there are a certain number of "unknown" in all the various conditions, which, of necessity, must be eliminated from the calculation.

Of the different persons admitted, 17.8 per cent of the men and 26.4 per cent of the women had, so far as could be ascertained, been insane and under treatment before in the hospitals of this and other States.

Seventy per cent of those admitted were suffering from their first attack. This proportion of first attacks is a little lower than that of Massachusetts, where, in 1900, the first attacks were 75 per cent of the admissions.

RESIDENCE.

A point of some interest is the residence of those becoming insane. Considering the subject from the standpoint of the relative number from the cities and the country, it will be found that our nine largest cities, having an aggregate population of 627,887 persons, furnished 54 per cent of the people becoming insane last year. To put it more clearly, 42 per cent of the population of the State live in our nine largest cities, and these cities, last year, supplied 54 per cent of the insane.

The smaller towns and the country proper, containing 857,166 persons, or 57 per cent of the population, furnished 45 per cent of the insane.

In the cities, one person in every 900 has become insane, while in the country and smaller towns, one in every 1,493 has become insane.

Forty-one per cent of the women were residents of the country, and 59 per cent came from the larger cities. Forty-four per cent of the men were from the country, and 54 per cent from the cities.

These data have been taken with care, in order that persons brought to the larger cities simply for committal, and residing elsewhere, might not be counted as belonging to the city. It may be considered as nearly correct as it is possible to make it. The excess of city residents becoming insane over those living in the rural districts, while not in accordance with English statistics, which often show the reverse, is in keeping with the results obtained in investigations in a majority of our own States.

SEASON.

Of the total admissions, 28.08 per cent were admitted in the spring months, 25.49 per cent in the summer, 25.67 per cent in the fall, and 20.77 per cent in the winter. Comparing summer and winter months, we find 53 per cent for summer, and 46 per cent for winter. Though the proportion between winter and summer months may vary slightly, the general rule is that most of our States agree with the above figures and show an excess in summer.

SEX.

There were 836 men and 427 women admitted during the year. There were in the State at the last United States census 820,531 men and 664,522 women, therefore one man became insane for every 981 of the male population, and one woman for every 1,556 of the female population. To put it in another way, 10.2 men became insane for every 10,000 of the male population, while there were 6.5 insane women for every 10,000 of the female population.

It has commonly been understood, especially in foreign countries, that insanity is more common among women than among men. The rule does not hold good in the United States. In many States men are in excess, as in California. There is nothing abnormal in the rate at which women are becoming insane in this State, though the rate is certainly a little high. The rate for men is high, and will be partially explained later on.

CIVIL CONDITION.

	Married.		Single.		Widowed.	
	General Population.	Insane.	General Population.	Insane.	General Population.	Insane.
Men -----	44.9%	25.0%	48.8%	54.5%	4.7%	7.7%
Women -----	55.2	50.0	31.1	22.4	12.5	20.6

It has been accepted as a pretty general rule that marriage favors soundness of mind, that single blessedness promotes the development of mental disturbance, and the above table of the civil condition of those admitted shows an excess toward insanity in the single men and a very decided decrease among single women. The percentage among the married of both sexes may be said to be strictly in keeping with the percentage of married in the general population.

NATIVITY.

	General Population.	Insane.
Born in United States	75.2%	55.0%
Born in foreign countries.....	24.7	43.0

Of the admissions during the year, 695 were born in the United States, 544 were of foreign birth, and 32 were of unknown nativity. Of the native born, 212 were born in California. Of the foreign born, 101 were born in Ireland, 82 in Germany, 39 in China, 36 in Norway and Sweden, 43 in England, and the rest scattered.

For every 1,608 of the native-born population, one native born became insane; for every 675 of the foreign-born, one foreign born became insane; for every 1,028 Chinese, one Chinaman became insane; for every 3,119 persons born in California, one native-born Californian became insane.

AGE.

Of the 1,271 persons admitted, 59.2 per cent were between the ages of 25 and 50; 30.6 per cent were over 50 years; and 10 per cent were between 15 and 25 years of age. These figures are in accordance with the accepted fact that insanity is a disease of the more active period of life.

Going into the matter of age more carefully and eliminating all of the re-admissions or second attacks, it is found that in 217 of our first admissions insanity commenced between 20 and 30 years of age; 266 first attacks were between the ages of 30 and 40; and 197 between 40 and 50.

CAUSES.

Special efforts have been made during the past year to ascertain the frequency of certain causes of insanity in those admitted. The Medical Superintendent at each hospital in the State was requested to give his own opinion, based on the observations and inquiries of his medical corps, together with the information derived from the commitments.

The results obtained have not been fully satisfactory, for the reason that they are not entirely in accordance with generally accepted facts.

In the table of causes as given by the Superintendents, heredity appears in 256 of the cases, or 20 per cent of the admissions. This percentage is rather low in comparison with other States, and its correctness must be doubted. The large proportion of single men in our admissions makes it very difficult to get any family history, and this fact, to some extent, may account for the low figure. A history of heredity or inherited weakness is difficult to bring out under the best of circumstances, and where the relatives or friends can not be located, as in many of our cases, it is practically impossible to get any family history. Males show a percentage of 19.2 due to heredity, while females show 22.2 per cent from the same cause.

Heredity is a potent influence not only because of the predisposition to mental disharmonies and to strictly nervous affections as well, but additionally because of the lowered tone of nutrition and consequent diminished resistance to active disease-producing agents that follows certain diseases transmissible by inheritance.

Of cases due to alcohol there were 186, or 14.72 per cent of the whole number of admissions. Adding cases due to excessive use of drugs, opium, cocaine, etc., to the alcoholic cases, we have a total of 216, or a percentage of 17.1. Alcohol as a causative factor of insanity so often goes hand in hand with heredity that it is hardly proper in many cases to credit alcohol alone as a cause. Heredity renders its subjects more susceptible to the injurious effects of the stimulant. Many a man rendered insane, apparently by the direct effects of alcohol, would not succumb were it not for the inherited weakness engrafted upon him. On the other hand, were it not for the alcohol he might never have become insane, even with the inherited weakness. Excluding alcohol and heredity, physical causes still occupy the first place.

FORMS OF INSANITY.

A study of the forms of insanity admitted during the year shows that 414, or 33 per cent, were classified as some form of mania, while 230, or 18.38 per cent, were some form of melancholia. The considerable excess of manias over melancholias is not entirely in accord with later-day experience of some American superintendents, who find an excess of melancholias in the admissions. English writers find an excess of cases of mania.

Our percentage of cases of dementia is 11.99, which is in close agreement with usual statistical tables.

Of paranoia we had 76 cases during the year, which may be considered high.

Of cases due to or accompanied by epilepsy there were 56.

Of general paresis, we had 81 cases, a percentage of 6.5, which is pretty nearly in accord with the figures usually given in the United States, where the disease is less prevalent than in many foreign countries.

In looking up the history of the cases of general paresis, certain data are found which, though only confirmatory of generally accepted facts, seem to be worthy of notice. It is generally accepted that this most fatal form of mental disease is more common among city residents than among the rural population. Examination of the cases admitted to our hospitals during the year past shows that 72 per cent of them were residents of our largest cities, while but 22 per cent were from the country. It is admitted to be a disease of the active period of life. Our figures show that 63 per cent were between thirty and fifty years of age.

Of the persons suffering from general paresis, 46.9 per cent were foreign born and 49.3 per cent were native born. The percentage of foreign born in the general population is 24.7; the native born have a percentage in the general population of 75.2.

In reviewing the causes of this particular form of insanity it is found that the well-known agents, alcohol, syphilis, and heredity, are the chief factors. In twenty-five cases, alcohol had been used to excess, and in fifty-three, either moderately or in excess. Syphilis, though believed to be the chief agent in the production of this disease, could not be definitely stated to be the cause in more than eight cases. Head injury seemed to be at least a contributing cause in five cases. Heredity could be traced in thirteen cases definitely. Thirty-nine of the eighty-one cases were engaged in professional or commercial pursuits, or were skilled mechanics. At least two of the principal causes of this most hopelessly incurable of all forms of insanity are avoidable.

RESULTS OF TREATMENT.

Any statement covering only a year's treatment of the admissions to a hospital for the insane is practically valueless for scientific or comparative purposes, yet, at the same time, it is not entirely useless and is given for what it is worth.

On June 30, 1902, the end of the fiscal year which we are considering, of the 1,263 persons admitted, 150, or 11.87 per cent, had been discharged recovered. Data for comparison with this are hard to find, but I have before me the results of a year's work of the same character in one of the New York hospitals, and their rate of recoveries was 13 per cent.

Taking those discharged recovered and improved together, the percentage for the New York institution was 16.8 per cent, while in our State it has been 15.3 per cent.

Of our 1,263 admissions, 14 were discharged as not insane.

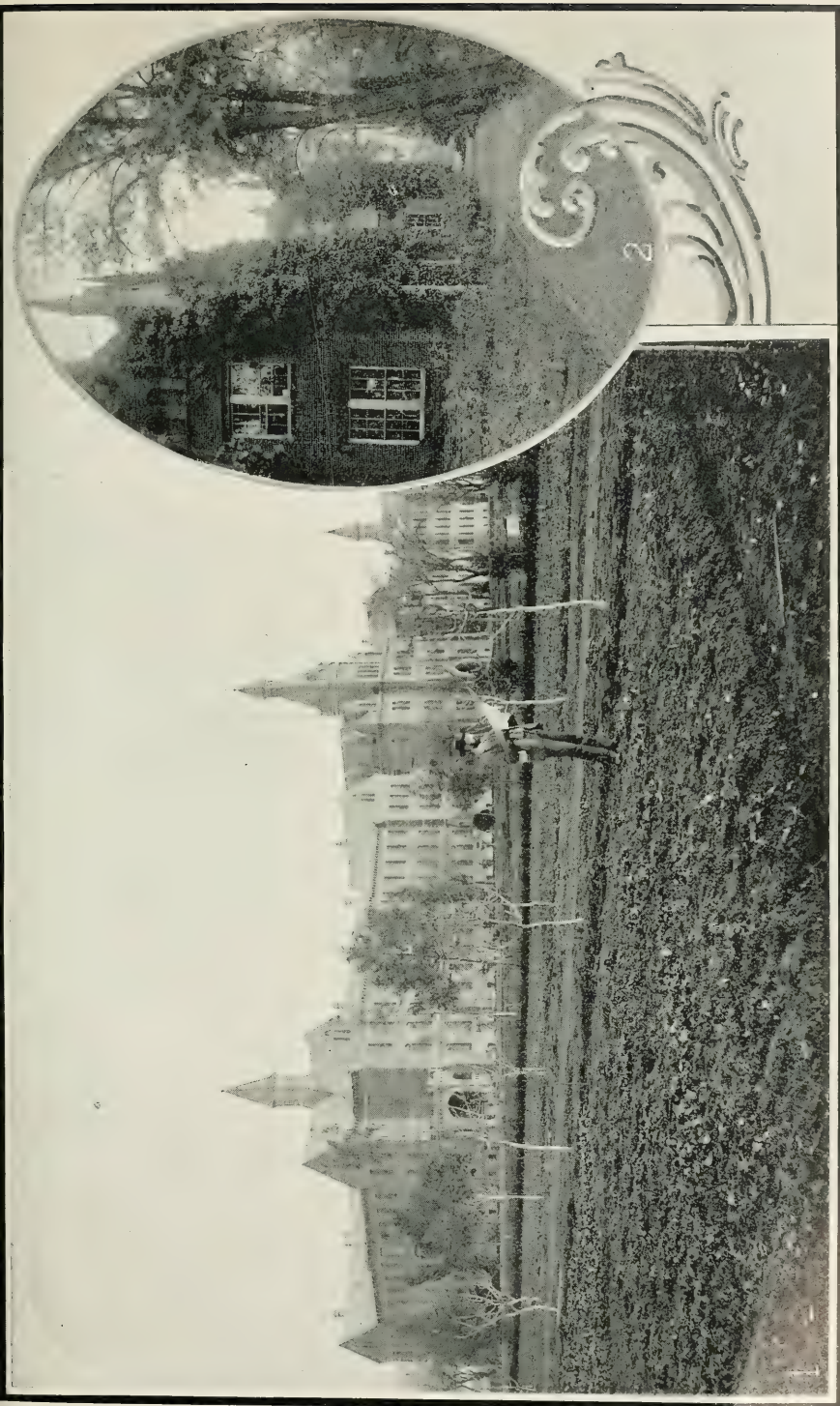
One hundred and thirty-nine of those admitted died during the year, a percentage of 11, while in the hospital above quoted the per cent of deaths was 11.9.

In closing this review it may be of interest to give the percentage of recoveries based on the number admitted, and the percentage of deaths based on the number treated, in all of the hospitals of the State:

Average per cent of recoveries, all hospitals.....	30.78
Average per cent of deaths, all hospitals.....	8.88

It will be found that these figures compare very favorably with similar statistics of the hospitals of this country.

F. W. HATCH, M.D.,
General Superintendent of State Hospitals.



STOCKTON STATE HOSPITAL—1. MAIN BUILDING, MALE DEPARTMENT; 2. OLD BUILDING, MALE DEPARTMENT.

REPORT

OF THE

STOCKTON STATE HOSPITAL.

NOTE: For statistical tables, see Appendix.

REPORT OF THE MEDICAL SUPERINTENDENT.

For the Year ending June 30, 1901.

To the Board of Managers of the Stockton State Hospital:

GENTLEMEN: AS required by the Insanity Law of the State, I submit my report of the business and operations of the Hospital for the fiscal year ending with June 30, 1901, showing the principal facts and results.

From the yearly summary of movement of patients it will be seen that at the beginning of the year there were 1,593 patients under my charge, and that the number admitted during the year was 365, making the whole number under care and treatment 1,958; of this number, 92 were discharged as recovered, 19 as improved, 8 as unimproved, and 5 as not insane; 197 died, and 14 successfully escaped; leaving 1,623 patients in the custody of this Hospital on June 30, 1901. This is an increase of 30 during the year.

The tables, setting forth the usual statistics concerning the patients, contain nothing that requires special comment.

It will be seen from the tables showing the transactions of the Steward's Department that the total expenditure for articles consumed, and other expenses, including pay-roll of officers and employés and pay of Managers, was \$195,103.43, and the daily per capita cost 33.2 cents.

Inasmuch as there will be another report from the Medical Superintendent to your Honorable Board before the next Legislature convenes, I will defer suggestions for such needed improvements as will require legislative appropriations. There are, however, a few improvements which might be paid for from the Contingent Fund, to the most urgent of which I beg to call your attention at this time. I refer to the very unsatisfactory condition of the culinary arrangements in the Men's Department. The noise of the work done in the early morning in the present kitchen and bakery disturbs the patients in the wards above and deprives them and their attendants of needed sleep, and the vapors

and odors from the cooking offensively permeate these wards, as well as the entire central part of the building. Perhaps, however, the most objectionable feature of the present arrangement is that the food has to be carried a considerable distance and part of the way upstairs to the attendants' dining-room. By the proposed change the work of the bakery, kitchen, and dining-room will be greatly facilitated, and freedom of action, air, and light, in place of being extremely limited, will be ample; besides, valuable space will be available for the accommodation of fifty or sixty additional patients. I herewith submit a rough drawing of the proposed alterations and additions, accompanied by a careful estimate of the cost. The economy in the matter will be apparent when I state that provision for fifty or sixty patients under ordinary circumstances would cost not less than from \$20,000 to \$25,000, whereas the estimated cost of this improvement will be less than \$5,000.

I am happy to be able to say that we have been fortunate in not having any serious epidemic or other untoward events to report.

The officers and employes have been generally faithful and efficient in the performance of their respective duties, and the relations between the Board of Managers and myself have been most satisfactory. In view of this happy condition of affairs and for many favors received, I wish to express my sincere thanks.

Very respectfully yours,

ASA CLARK,
Medical Superintendent.

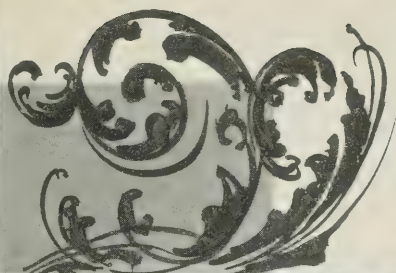
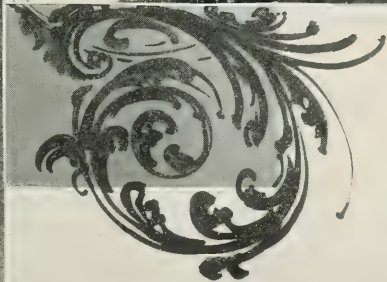
REPORT OF THE MEDICAL SUPERINTENDENT.

For the Year ending June 30, 1902.

To the Board of Managers of the Stockton State Hospital:

GENTLEMEN: As required by the Insanity Law of the State, I submit my report of the business and operations of the Hospital for the fiscal year ending with June 30, 1902, showing the principal facts and results.

From the summary of movement of patients it will be seen that at the beginning of the year there were 1,623 patients under my charge, and that the number admitted during the year was 388, making the whole number under care and treatment 2,011; of this number, 119 were discharged as recovered, 65 as improved, 16 as unimproved, and 6 as not insane; 190 died, and 7 successfully escaped; leaving 1,608 in custody of this Hospital on June 30, 1902. This is a decrease of 15 during the year. The percentage of recoveries to admissions was 32.21, and of deaths to whole number treated, 9.45.



STOCKTON STATE HOSPITAL—1. A VIEW, THROUGH THE TREES, OF NORTH END OF MALE DEPARTMENT;
2. FEMALE DEPARTMENT; 3. A WARD IN FEMALE DEPARTMENT.

The tables setting forth the usual statistics concerning the patients do not call for special comment.

It will be seen from the tables showing the transactions of the Steward's Department that the total expenditures for articles consumed and other expenses, including pay-roll of officers and employes and pay of Managers, was \$195,606.04, and the daily per capita cost 33 cents. Last year the amount was \$195,103.43, and the per capita 33.2 cents. The total amount for the biennial period was \$390,709.47, of which \$192,069.08 was paid from the Salary Fund and \$198,640.39 from the Support Fund. If the pro rata amount of the expenses of the State Commission in Lunacy assessed to the Support Fund of this Hospital for the same biennial period (\$7,778.52) be added to the Support Fund, the full amount will be \$206,418.91. The balance left in this fund is \$1,031.09, and in the Salary Fund, \$3,430.92.

The expenditures from the Contingent Fund amount to \$6,215.37, of which \$2,799.44 was on account of the construction of the new bakery and kitchen.

I am glad to be able to report that the work on the new bakery and kitchen is progressing satisfactorily, and that the present condition of the work fully justifies my prediction that the money outlay will be extremely small in proportion to results certain to be attained.

As you are aware, several bills were presented to and passed by the last Legislature, but as they failed to meet the approval of the Governor, the needs of the institution which these bills were expected to relieve are quite as urgent as they were two years ago. You will doubtless feel it incumbent upon you to ask the next Legislature for the required relief.

Among the things which were then considered of importance was the acquirement of a tract of land outside but near the city for farm and dairy purposes. Situated as this Hospital is within a city, there are very many reasons why such provision should be made. For instance, it is advisable to have a herd constantly affording not less than two hundred milk-giving cows, and it is well known that cows confined in a small inclosure, without the possibilities of exercise, which they naturally gain by the process of grazing, can never be in prime condition. Having this additional land, which would be utilized for the raising of cattle, hogs, etc., and for fodder and garden truck, our present holding might be seeded to rye grass and devoted to the pasturing of as many milch cows as it would feed.

I will not take up your time in enumerating all the conditions which point to the propriety of the proposed purchase, but among them is the fact that in the not very remote future land values, lack of room, and other objectionable features incident to city environment, will force the Hospital from its present site.

If wisely located and of ample dimensions this land will soon become an active supporting offspring, and will finally provide the permanent home of California's mother-institution for the care of her insane.

It will be wisdom in this way to make timely provision for the inevitable, especially as this can be done now at a moderate cost, while in the meantime the running expenses of the institution will be largely diminished.

In the retrospect of the last two years I am happy to say that nothing regrettable of importance presents itself. It is well known that good discipline has been maintained, and that the general service has been above the average. The general health, condition, and comfort of the patients have never been better. The officers and employes have been loyal and faithful in the discharge of their duties, with very few exceptions of natural unfitness, and such cases have been eliminated.

I am unable to sufficiently express my satisfaction at the pleasant relations that exist between the Board of Managers and myself. You, gentlemen, have given me all the support in my endeavors to faithfully discharge my duties that I could expect or desire.

With sincere gratitude, I remain yours respectfully,

ASA CLARK,
Medical Superintendent.

REPORT

OF THE

NAPA STATE HOSPITAL.

NOTE: For statistical tables, see Appendix.

REPORT OF THE BOARD OF MANAGERS.

For the Fiscal Year ending June 30, 1902.

NAPA, CAL., August 8, 1902.

To the Honorable the State Commission in Lunacy:

GENTLEMEN: The Board of Managers of the Napa State Hospital respectfully make the following report for the fiscal year ending June 30, 1902:

The Board of Managers of the Napa State Hospital have held regular monthly meetings on the second Friday of each month, and from time to time as the business of the Hospital required have held extra meetings. The minutes of the Secretary will show in detail the transactions at all of such meetings.

We deemed it very essential that a system of by-laws be provided for said Hospital; therefore, a system of by-laws was prepared some eight months or more ago, and after due consideration was adopted by this Board and submitted immediately thereafter to the Commission for its approval, but thus far no such approval has been made, nor even a rejection thereof, but the whole matter seems to be in abeyance. We earnestly urge that said by-laws be accepted, rejected, or amended, so that we may have some system by which we can govern the institution over which we are the Managers.

The wants of the Hospital are increasing from year to year, and at times we are almost at our wits' end to know how to provide for the requirements thereof. The number of patients is gradually increasing, and the buildings, machinery, and water-system are constantly in need of repairs. We require more room. There are over one hundred patients

sleeping on the floors of the halls and corridors at night-time, and every morning the mattresses must be rolled up and stored away in some convenient place. In the night-time the institution looks like the camp of an army of soldiers who are bivouacking on the ground. Several plans have been suggested; one was that of fitting up the attics to accommodate more patients. This is not considered very feasible, for the reason that such sleeping apartments would be too high up, being equivalent to a fourth story. Another plan is to erect an additional wing, for which we have all the material save that of lumber and mortar.

There has been installed a gas plant, which works most admirably and has reduced the cost of the manufacture of gas to about fifty-five cents per thousand. The gas is of fine illuminating quality, and is manufactured from Coalinga oil.

The Bay Counties Power Company, by virtue of a contract approved by the Commission in Lunacy, has wired all the main buildings and has installed electric lights. While the company agreed to wire the building for \$2,850, it has cost them nearly \$5,000, furnishing us with 999 lights, to which it became necessary to add something like 109 lights. The Board adopted what is called a "flat rate" of twenty-five cents per month for each light, instead of the meter system.

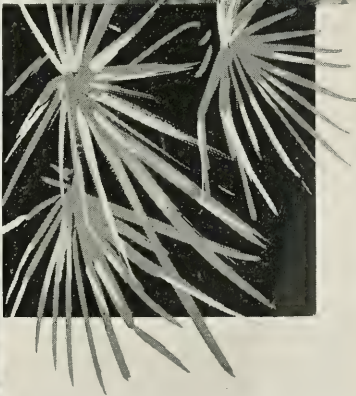
Our herd of milch cows has been increased, and we hope by next spring to be able to milk more than 100 cows. The milk is all used at the institution, and is a valuable adjunct in the food department. We could use twice the amount of milk with good results.

Our farm products have largely increased. The Commission in Lunacy this year very wisely allowed us the full amount of seed which we desired, thereby enabling us to raise a much larger quantity of hay than we would have otherwise been able to do.

As before stated, the main buildings have now been in use over a quarter of a century, and extensive repairs are needed. New floors should be laid in many parts of the institution—in the laundry, engine-room, etc. This last year we painted the entire building exteriorly and about two-thirds of the wood-work of the interior.

We have changed the heating and steam apparatus from coal to oil, thereby making a large saving. On our own ground on the line of the railroad we established an oil pumping-station. We laid a four-inch pipe for about three fourths of a mile and built a tank, and when the oil car arrives at the station we immediately start the pump and unload the car in a very reasonable length of time, thereby doing away with teams for the purpose of conveying the oil to the institution.

We have, in conjunction with the Napa County Board of Supervisors, constructed a boulevard by the help of the working patients and our own teams. This boulevard is not only an honor to the institution, but a credit to the Board of Supervisors of Napa County.



NAPA STATE HOSPITAL—1. A VIEW OF A PORTION OF THE GROUNDS AND BUILDING; 2. LOOKING THROUGH THE GROUNDS AT MAIN TOWER.

The general management of the institution under the present officers has been very exemplary. The sanitary condition is as good as possible, considering the fact that we do not have sufficient water for the purposes of the institution. There is an abundance of water which can be had if the Legislature would make the necessary appropriation therefor. As to the water-supply we will speak further on.

The health of the patients is as good as could possibly be expected. The diet is good. We have experimented with what is called "slop-hoppers" in each ward, and find them a success.

We need more land. While we have, numerically, many acres of land, still much of it is not tillable, being rough, rocky hill-sides. What we need is more tillable land—land that will grow vegetables, potatoes, and corn, as well as hay. We deem it not only advisable, but exceedingly necessary, that the class of land which we need should be purchased for the benefit of the institution; and as such, we recommend and urge the purchase of what is known as the "Smith-Brown" ranch. The acquisition of that ranch—or one similar to it—would afford additional means for the employment, in a peculiarly satisfactory manner, of a large number of the patients of the Hospital, would furnish us with more feed for our increasing dairy herd, and would greatly add to the entire list of farm products which are extensively used in the institution.

The graveyard occupies a very valuable portion of our land. While yet not particularly large, it is on the increase. We would suggest the removal of the same to land which cannot be used for agricultural purposes, or that some other system be adopted for the disposition of the unclaimed dead.

We solemnly utter our protest against the sending of criminals from the State Prisons, and of children and old senile people to this institution. It was never intended for that class of people. The hospitals of each county are the places for old people. Feeble-minded children belong in their own institution. Criminals belong to the State Prisons, in which an insane ward should be established.

We have on hand, at a fair estimate, a million and a half of bricks made at the institution by insane help, worth probably \$3.50 per thousand. These bricks we desire to use, or as many of them as necessary, in building additional conveniences for the institution. We have made a valuable addition to the cow barn, but even now want more room for the cows.

We need more help—expert help—in the line of mechanics. We need plumbers as well as brick-masons.

In referring again to the water-supply, would state that during the summer season, in the upper wards, at certain hours in the day, no

water can be obtained, and that the stench from unflushed water-closets is not only exceedingly disagreeable, but is not conducive to good health.

The boiler capacity as it now stands is 280 horse-power, which is not sufficient for motive power and should be increased 100 horse-power. The boilers can not be properly cleaned and are not safe. Boilers Nos. 1 and 2 have been in use for some twelve years; Nos. 3 and 4 ever since the institution was built. Eighty pounds of steam is all that can be safely carried with these boilers, yet 125 pounds of steam is necessary for the wants of the institution. On account of the weakness of boilers Nos. 3 and 4, the boiler inspectors have refused to allow us to carry the necessary steam power, cutting this down from 125 to 80 pounds of steam, which is not sufficient for the power required. Therefore, we recommend the purchase of two new boilers to take the place of Nos. 3 and 4, and that the same be of a larger capacity.

Respectfully submitted.

E. Z. HENNESSEY,
R. M. SWAIN,
F. W. BUSH,
W. V. STAFFORD,
MAX GOLDBERG,
Board of Managers.

DONATIONS.

We have received regularly through the mails the following newspapers for distribution among the patients, for which the publishers will accept our thanks: Napa Weekly Journal; Westliche Post (German), St. Louis, Mo.; Contra Costa Gazette; Sacramento Weekly Bee; Abend Post (German), San Francisco; Cloverdale Reveille; St. Helena Star; Selma Irrigator; Petaluma Argus; Redlands Citrograph; Dixon Tribune; Petaluma Courier.

We are under obligations to the following for donations of miscellaneous reading matter: Napa Free Library, Napa; Mrs. J. Zollner, Napa; Mrs. O'Neil, Napa; J. J. Sweet, Napa; Mary M. King, Napa; Mrs. George Wilson, Vallejo; Rev. Richard Wylie, Napa; Sarah B. Miner, Chazy, N. Y.; Miss Nellie Pond, Napa; Miss F. Holman, San Francisco; Joseph Schuppert, Napa; Postmaster, Napa; John Rausch, Napa; Charles Levinson, Napa; Eli Hottle, Napa; Eagle Bicycle Club, Napa; Mrs. C. T. Patriarche, San Francisco; M. E. Church, Epworth League, Napa; Mrs. S. M. Toole, Napa; Miss Ella Boynton, Napa.

REPORT OF TREASURER.**For the Fiscal Year ending June 30, 1902.***To the Honorable Board of Managers of the Napa State Hospital:*

GENTLEMEN: I herewith present my report as Treasurer of the Napa State Hospital for the fiscal year ending June 30, 1902, on account of "Salaries," "Support," and "Contingent Fund." Vouchers are in my office for all moneys paid out:

**THE TREASURER IN ACCOUNT WITH THE "SALARY FUND" FOR THE FISCAL YEAR
ENDING JUNE 30, 1902.****Receipts.**

Received from the State for month of July, 1901	\$7,828 43
Received from the State for month of August, 1901	7,871 98
Received from the State for month of September, 1901	7,869 28
Received from the State for month of October, 1901	7,603 08
Received from the State for month of November, 1901	7,707 03
Received from the State for month of December, 1901	7,699 73
Received from the State for month of January, 1902	7,718 38
Received from the State for month of February, 1902	7,720 03
Received from the State for month of March, 1902	7,647 98
Received from the State for month of April, 1902	7,644 03
Received from the State for month of May, 1902	7,617 53
Received from the State for month of June, 1902	7,692 93
	<hr/>
	\$92,620 41

Disbursements.

Paid out on account of pay roll during the twelve months ending June 30, 1901	\$92,620 41
	<hr/>

**THE TREASURER IN ACCOUNT WITH THE "SUPPORT FUND" FOR THE FISCAL
YEAR ENDING JUNE 30, 1902.****Receipts.**

Received from the State for month of July, 1901	\$8,441 42
Received from the State for month of August, 1901	8,517 31
Received from the State for month of September, 1901	8,403 32
Received from the State for month of October, 1901	9,120 95
Received from the State for month of November, 1901	8,762 25
Received from the State for month of December, 1901	8,632 15
Received from the State for month of January, 1902	8,748 59
Received from the State for month of February, 1902	8,555 90
Received from the State for month of March, 1902	8,708 57
Received from the State for month of April, 1902	8,472 66
Received from the State for month of May, 1902	8,777 24
Received from the State for month of June, 1902	8,440 18
	<hr/>
	\$103,580 54

Disbursements.

Paid on account of claims allowed by the Board of Managers during the twelve months ending June 30, 1902	\$103,580 54
	<hr/>

**THE TREASURER IN ACCOUNT WITH THE "CONTINGENT FUND" FOR THE YEAR
ENDING JUNE 30, 1902.**

Receipts.	
Received from the Superintendent for July, 1901	\$1,874 50
Received from the State for July, 1901	979 68
Received from the Superintendent for August, 1901	2,428 05
Received from the State for August, 1901	3,199 87
Received from the Superintendent for September, 1901	1,474 50
Received from the State for September, 1901	1,647 78
Received from the Superintendent for October, 1901	1,331 65
Received from the State for October, 1901	6,695 67
Received from the Superintendent for November, 1901	1,557 65
Received from the State for November, 1901	1,722 34
Received from the Superintendent for December, 1901	1,668 37
Received from the State for December, 1901	700 39
Received from the Superintendent for January, 1902	1,334 50
Received from the State for January, 1902	407 25
Received from the Superintendent for February, 1902	1,258 65
Received from the State for February, 1902	560 08
Received from the Superintendent for March, 1902	1,870 41
Received from the State for March, 1902	295 51
Received from the Superintendent for April, 1902	2,151 17
Received from the State for April, 1902	615 88
Received from the Superintendent for May, 1902	1,815 73
Received from the State for May, 1902	268 25
Received from the Superintendent for June, 1902	1,492 20
Received from the State for June, 1902	889 20
	<hr/>
	\$37,439 28
Disbursements.	
Paid into State Treasury	\$20,257 38
Paid on account of claims allowed by Board of Managers during the twelve months ending June 30, 1902	17,181 90
	<hr/>
	\$37,439 28

Respectfully submitted.

C. B. SEELEY,
Treasurer.

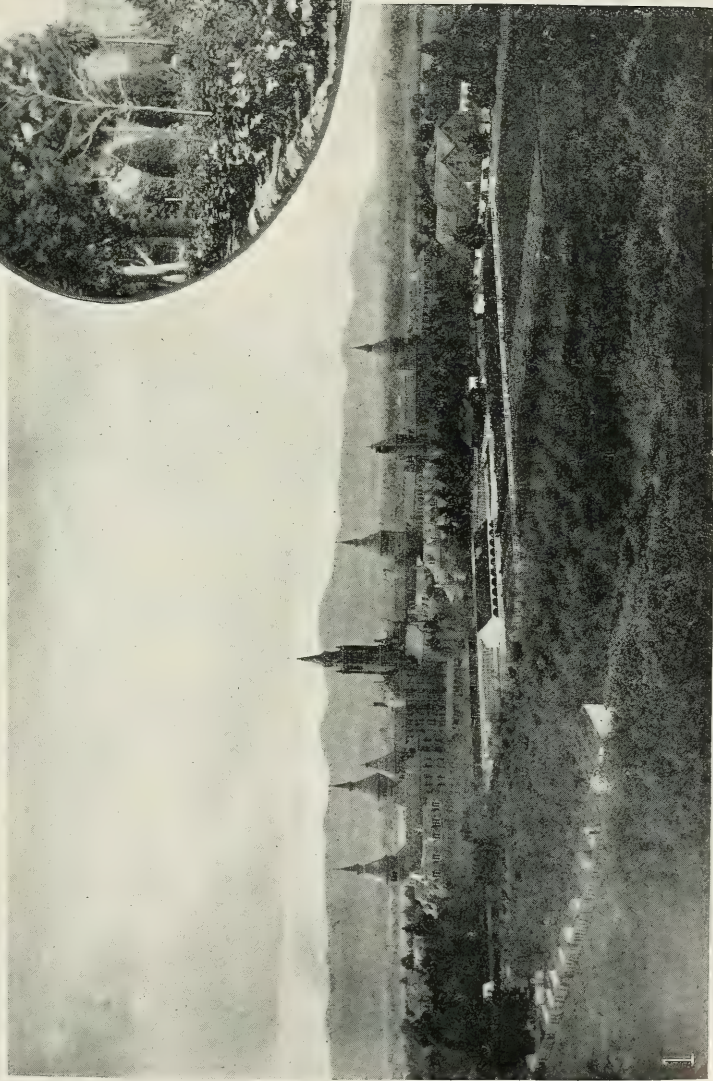
Dated July 26, 1902.

REPORT OF THE MEDICAL SUPERINTENDENT.

To the Honorable Board of Managers of the Napa State Hospital:

GENTLEMEN: I beg to hand you herewith, in tabulated form, the data from the records of this Hospital for the fiscal year ending June 30, 1902, that are usually contained in the annual reports required by law from the Superintendents and Boards of Managers of the State Hospitals.

At the close of last year we had remaining on our rolls 1,514 patients, which showed a gain of seven over the previous year, and the present year closes with 1,526 patients under our charge, a gain of twelve during the year, and the largest number ever reached in the history of this Hospital. This large and increasing number is greatly to be regretted, being far beyond the reasonable capacity of the Hospital, rendering



NAPA STATE HOSPITAL—1. VIEW OF HOSPITAL FROM THE HILLS IN REAR; 2. LOOKING OVER THE FLOWER GARDEN.

anything like proper classification of patients absolutely impossible and necessitating the bedding of many patients on the floors of the main corridors in the wards. This condition of things is largely due to the growing habit, on the part of the Superior Judges and medical examiners in lunacy, of committing to the State Hospitals many very old people suffering from senile dementia, persons who are more or less helpless from partial paralysis, or have become bedridden from some long-continued infirmity, the majority of which cases can be, and ought to be, kept in the almshouses and county hospitals, being beyond remedy and requiring only to be cared for and nursed. In this connection I would say that in your report to the State Commission in Lunacy you can not protest too strenuously against the practice, unfortunately sanctioned by the present law, of sending insane criminals from the State Prisons to the State Hospitals. It is a very great wrong, and one that has been in vogue ever since the inauguration of prisons and insane asylums in the State, and should not be permitted longer to exist.

The percentage of deaths to the number treated during the year is 8.46, which I consider to be very small, considering the large number of old chronic cases that have been accumulating in this Hospital for the last quarter of a century.

The percentage of recoveries to admissions, 17.79, is the smallest by far, perhaps, that has ever been reported from this or any other State Hospital in California, and the majority of like institutions elsewhere. This marked difference does not, in my judgment, lie in the fact that fewer patients, in proportion to numbers, really "recover" in this Hospital than in any other, but, as is well said by the State Commission in Lunacy, in its last report, in commenting upon "the great difference in the percentage of 'recoveries' attained in the five State Hospitals," shows conclusively "that either the standard of 'recovery' as adopted is different with different Superintendents, or that the temperament of the discharging officer cuts a very wide swath in determining whether 'recovered' or 'improved' should be placed opposite a discharged patient's name."

My experience and observation, extending over a period of more than twenty-six years of continuous service on the medical staff of this Hospital, assure me that the comment of the State Commission in Lunacy is eminently correct, and also that my figures are quite up to the mark of actual fact, and if anything, rather beyond it. There is no item contained in the reports of hospitals for the insane so absurdly erroneous and absolutely worthless for serious statistical purposes as that of the percentage of "recoveries." I know of one case in which the party was committed six times, was discharged as "recovered" five times, and died in the asylum after the sixth commitment. This is an extreme case, perhaps, but there are hundreds of others like it, only

differing in the number of times of commitments and discharges as "recovered." Another instance, showing the way in which this item is sometimes manipulated and made to accord with "the temperament of the discharging officer," occurred within my experience. The "discharging officer," at a Hospital, finding at the end of the year that his percentage of "recoveries," as shown by the records, fell short of his wishes, simply assumed, in order to suit his idea of a respectable proportion, that a sufficient number of those who had been discharged as "improved" had "recovered" since leaving the Hospital. This much is stated to show why I say that the column in the table showing "percentage of recoveries" is absolutely worthless for statistical purposes.

Another matter that I would call attention to is that this Hospital has been occupied for nearly twenty-seven years and is beginning to show the decay and wear of time and use, making the item of ordinary repairs more extensive and more imperative from year to year. This increasing demand for repairs necessitates increased expenditure for material, which is a charge upon the allowance for maintenance, and I would therefore recommend that an appropriation of \$445,000 be urged for the fifty-fifth and fifty-sixth fiscal years, to meet these increasing expenses and the betterment of the patients.

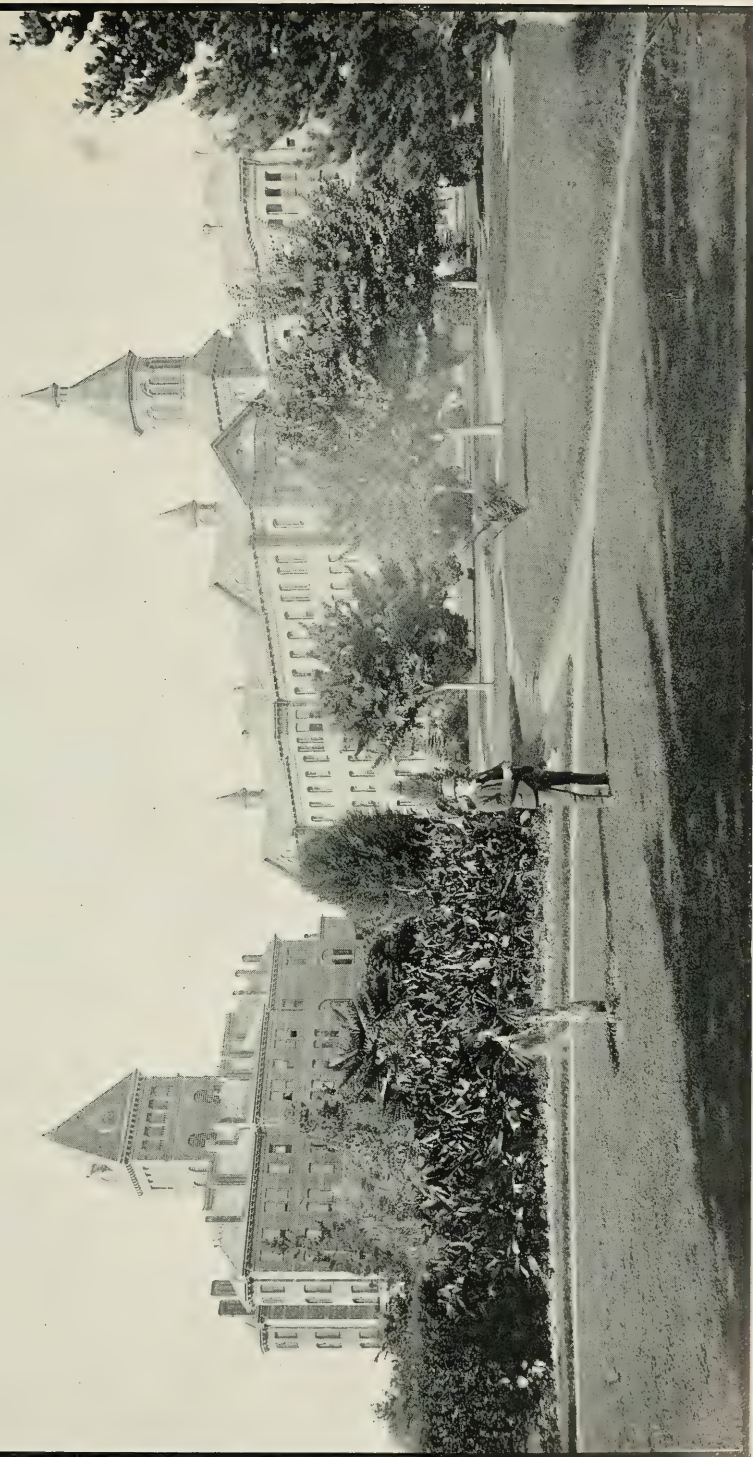
With the extraordinary repairs now before us, the placing of new boilers and piping for the hot-water system of the Hospital, and the replacing of worn-out radiators for heating the wards, you are already familiar.

The water question, which has been a matter of serious consideration by every Board of Managers since the foundation of the institution, is still pressing. Since placing a pump, about two years ago, into the deep-bored well which had never before been utilized, the great deficiency for Hospital purposes has been greatly relieved during the midsummer months; but the supply from the catchment pools, or lakes, for irrigating the lawns and shrubbery is still very limited and entirely inadequate. Not a stroke of work has been done for eleven years past on those lakes, which are capable of being enlarged to probably three times their present capacity; but it is my purpose to resume the development work on them in the very near future, and I hope that before the winter rains begin to have added very considerably to the capacity of one of these lakes and thereby to increase by many thousands of gallons our present supply of water for irrigation.

Thanking you, gentlemen, for the cordiality of feeling and coöperation shown me during my incumbency as Medical Superintendent of this Hospital, I beg to submit these remarks and comments with my report of the business workings of the institution for the fiscal year just closed.

Very respectfully,

L. F. DOZIER,
Medical Superintendent.



AGNEWS STATE HOSPITAL—ADMINISTRATION BUILDING AND MALE DEPARTMENT.

REPORT

OF THE

AGNEWS STATE HOSPITAL.

NOTE: For statistical tables, see Appendix.

REPORT OF THE BOARD OF MANAGERS.

For the Biennial Period ending June 30, 1902.

AGNEW, CAL., August 29, 1902.

To the State Commission in Lunacy, Sacramento, Cal.:

GENTLEMEN: As required by law, the Board of Managers of the Agnews State Hospital present their report for the biennial period ending June 30, 1902, accompanied by the reports of the Medical Superintendent, Secretary and Treasurer, and of the Steward.

There has been no change in the Board of Managers since our last report, Messrs. Adolph Greeninger, Edward White, O. A. Hale, and Isaac Upham, whose terms had expired, having been reappointed, and Mr. James K. Wilson has yet two years to serve. The corps of officers remains the same, with the exception of Supervisor and Matron. Mr. C. E. Wilson resigned the position of Supervisor on February 28, 1901, and Mr. H. A. Braden was appointed to fill the vacancy on March 1, 1901. Miss A. L. Fitzgerald resigned the position of Matron on May 18, 1902, and Miss C. G. Patterson was appointed to fill the vacancy on June 17, 1902.

The general condition of the Hospital has never been more satisfactory than at the present time. The duties of the Managers are made exceedingly pleasant, not only by the harmony which prevails in all their business relations, but also by the orderly and systematic management of the Hospital by our able and proficient Medical Superintendent, Dr. J. A. Crane, who possesses rare executive ability and is peculiarly adapted to this position. The law very wisely provides that the Medical Superintendent shall appoint the employés, and he has been remark-

ably fortunate in his selections. The character of the employés has much to do with the successful management of an institution, and in this respect we have reason to be well satisfied.

At the last session of the Legislature (1901) an appropriation of \$5,000 for sinking an artesian well was made, and also one of \$5,000 for building a steel water-tower. The well is about half finished, and we believe it can be completed within the amount of the appropriation. We advertised for bids for building the tower, and the lowest bid was \$8,580, an amount exceeding the appropriation by \$3,580. We have thoroughly investigated the matter to ascertain if there was not some way we could build a tower, that would answer our purpose, for less money, in which effort we have been unsuccessful. The main building has several large tanks filled with water, and our engineer has reported that they are unsafe and liable at any time to do great damage to the building. We ask your Honorable Board to allow us to pay the deficiency, in cost of building, out of our Contingent Fund, and urge upon you the importance of giving this matter your earliest attention.

A commodious modern two-story cottage for men, at a cost of \$23,907.66, has been erected since our last report, and it cost \$3,346 to furnish it. Experience has proven that the money expended in building cottages is a profitable investment. They are not only self-supporting, but furnish superior accommodations which readily command the best prices for pay-patients.

By practicing the strictest economy and denying ourselves many necessary improvements, we have accumulated nearly enough in our Contingent Fund to build a two-story cottage for women, and as soon as we have your sanction will at once have prepared our plans and specifications.

We have estimated the appropriations required for the fifty-fifth and fifty-sixth fiscal years as follows:

Support	\$175,000 00
Salaries and wages	140,000 00
Total	\$315,000 00

It may be proper to state, that the increase in salary fund, asked for, is made necessary by additional attendants that will be required for the upper story of the new cottage, not later than July 1, 1903, and for the prospective and much needed women's cottage, which should be built and ready for occupancy one year latter. Furthermore, it will be recalled that the unaccountable cut in the salary appropriation two years ago has obliged us, for a number of months past (as at the present time), to pay a number of our employés out of the support fund, a deficiency which will also have to be met. Should the contemplated raise in salaries be arranged for, a still greater appropriation will, of course, be necessary.



AGNEWS STATE HOSPITAL—COTTAGES FOR MEN.

We have purposely omitted any statistics in our report, as it would only be repeating information contained in the full and complete reports of our Medical Superintendent, Secretary and Treasurer, and Steward.

All of which is respectfully submitted.

ISAAC UPHAM, Chairman,
JAMES K. WILSON,
O. A. HALE,
A. GREENINGER,
EDWARD WHITE,
Board of Managers.

REPORT OF TREASURER.

To the Honorable Board of Managers of Agnews State Hospital:

GENTLEMEN: Herewith find statement of receipts and expenditures for the fifty-third fiscal year, beginning July 1, 1901, and ending June 30, 1902.

SUPPORT FUND.

Appropriation for fifty-third fiscal year.....	\$82,995 00
Expenditures for same period.....	76,047 88
Appropriation exceeds expenditures.....	\$6,947 12

SALARY FUND.

Appropriation for fifty-third fiscal year.....	\$63,750 00
Expenditures for same period.....	63,460 36
Appropriation exceeds expenditures.....	\$289 64

CONTINGENT FUND.

Receipts.

Cash in hands of State Treasurer July 1, 1901.....	\$12,031 42
Cash in hands of Medical Superintendent July 1, 1901.....	200 00
Board of pay-patients.....	20,737 84
Miscellaneous sources.....	169 30
	\$33,138 56

Disbursements.

Repairs to two one-story cottages.....	\$3,315 57
Machinery repairs.....	230 00
Improvement of grounds.....	258 01
Telephone line.....	137 00
Live stock.....	165 80
Incidental expenses.....	622 51
Two-story brick cottage (53d fiscal year).....	5,412 66
Furnishing.....	3,346 00
Cash in hands of Medical Superintendent (revolving fund).....	200 00
Cash in hands of State Treasurer, June 30, 1902.....	19,451 01
	\$33,138 56

Respectfully submitted.

T. S. MONTGOMERY,
Treasurer.

REPORT OF THE MEDICAL SUPERINTENDENT.**For the Biennial Period ending June 30, 1902.**

AGNEW, CAL., September, 1902.

To the Honorable Board of Managers of the Agnews State Hospital:

GENTLEMEN: A somewhat cursory review of the workings of the Hospital for the fifty-second and fifty-third fiscal years discloses but little to which your attention need be especially directed at this time. This, however, being the last report of this character which I shall offer for your consideration, I have here desired to reduce to writing the few thoughts and observations uppermost in my mind, and which may fittingly come within the scope of such a paper.

As in my last biennial report, I shall not go into an extended analysis of the tables of statistics, herewith appended, nor of the accompanying reports of the Treasurer and Steward. They are, as heretofore, so simple in arrangement and easy of comprehension, as to admit of only a passing notice.

Suffice it to say that there were 1,004 patients at the beginning of the period and 1,025 at its close, this being somewhat in excess of former years. The total number under treatment was 1,411, with a death-rate of a fraction over 7 per cent of the number treated yearly, and 25.19 per cent of recoveries to the number of admissions for the period.

The Treasurer's report shows safe balances left over from the support and salary funds, and a contingent fund on June 30, 1902, of \$19,451.01. Out of this latter fund there has been expended upward of \$30,000 in the erection and furnishing of a two-story detached building for men, together with numerous other improvements and additions which need not be itemized here. The Steward's books show that the daily per capita cost of maintaining patients for the period was 37.44 cents, with the total cost of support for the fifty-second fiscal year \$137,016.83, and \$139,508.24 for the fifty-third.

The health of the patients and sanitary condition of the Hospital have remained exceptionally good, with practically complete immunity from all infectious and contagious diseases. This, with the almost entire absence of acute sickness, will never cease to be a growing wonder, when we take into consideration the heterogeneous material with which we have to deal, the many disturbing influences which enter into their lives, and the limitations by which we are surrounded, on every hand, in the effort to properly classify, individualize, and intelligently care for our crowded population. Absolute cleanliness and the constant application of antiseptic measures offer the only solution of this most

satisfactory condition of things. That the unfortunate state of the outfall sewer, and the difficulties attendant upon keeping it in working condition during the winter rains, may at any time reverse this order of things, we very well know; and it would seem highly proper to at once take up the matter of a thorough overhauling of the system under the direction of a skilled superintendent.

In October, 1901, the greatly congested state of the male wards was somewhat relieved by moving some forty patients into the lower story of the new cottage, which had just been completed and furnished. This number was gradually increased to fifty—its full capacity—and at no distant day the upper story will be needed for a like purpose. Temporarily the upper story was (and is at this writing) occupied by the men from the old cottage, and the latter by the patients from the women's cottage, now undergoing repairs. As soon as these are completed, the women will be returned to their own quarters and similar repairs made to the building to be vacated by them. We are much in need of another cottage for women, the one now in use having been filled to its utmost capacity since it was completed, as, indeed, are all the women's wards throughout the main building.

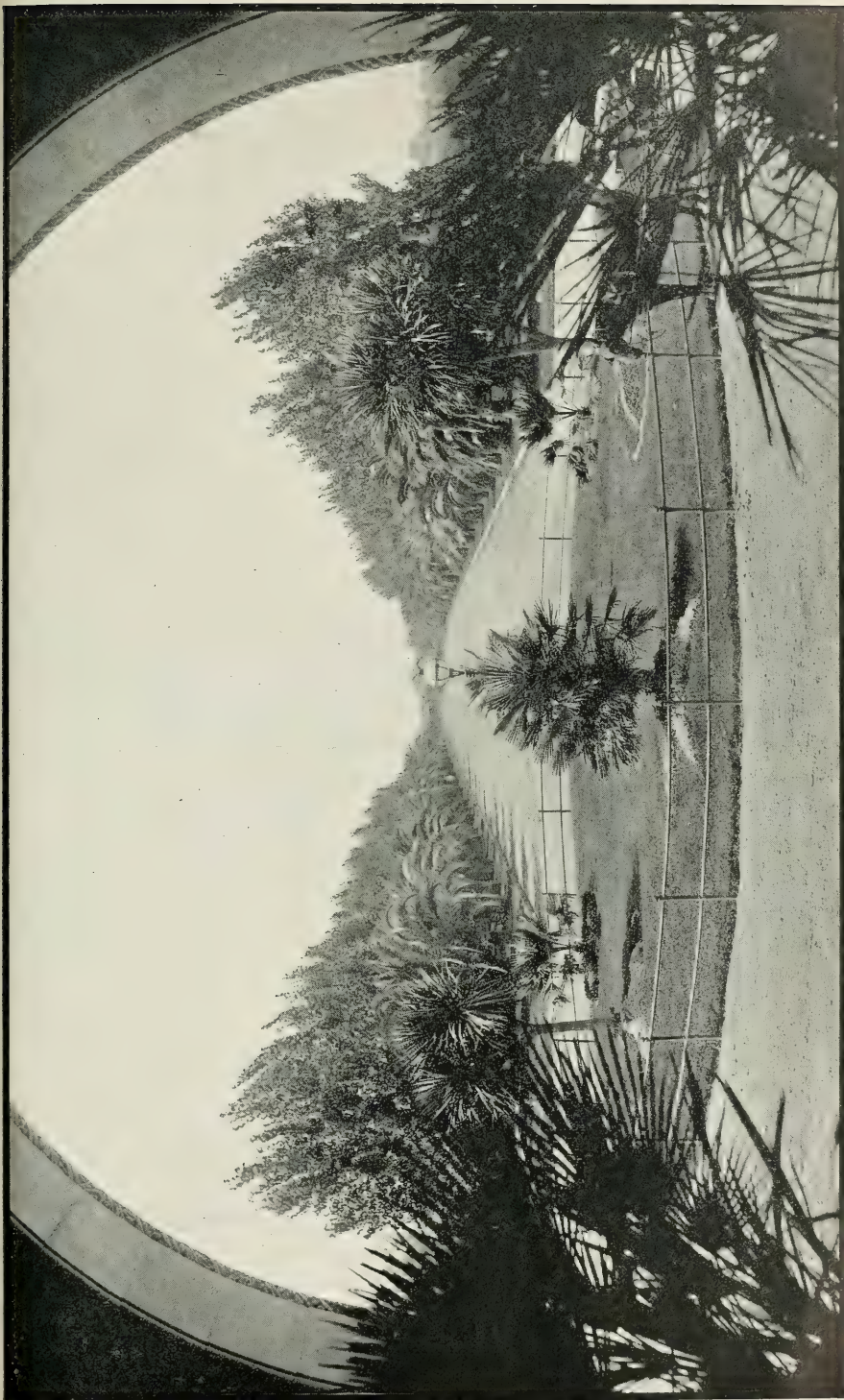
While there would appear to be no question as to the propriety of erecting these smaller detached buildings, especially for the convalescent and more hopeful cases, yet it is to be regretted that those attached to the Agnews State Hospital fall below that standard of solidity and permanence of construction in consonance with the dignified simplicity of their architecture, and which should characterize all State buildings for whatsoever purpose intended. The extensive and costly repairs now being made to those erected but a few years since, and made necessary by insufficient foundations, walls, and defective construction generally, stamp them as being a mere travesty on State or public buildings, and a method of construction that ought not to be perpetuated. That the building recently completed has not wholly escaped these faults is well known; and that they were not more flagrant in character was simply owing to the untiring zeal and vigilance exercised by those having in hand the supervision of the work.

The development of the modern hospital for the care of the insane is one of slow growth, and its evolution is generally attended by much weary waiting, and encompassed by many vexatious disappointments and, seemingly, endless delays. In the early history of a State—with pardonable pride—huge, pretentious, and even elegant structures are not infrequently hurriedly erected, and for years are permitted to stand as monuments to the folly of ill-considered plans, in detail of arrangement and requirement, simply on account of the architectural difficulties and great expense attendant upon their being changed to meet the wants of the modern and usually crowded hospital. There are few, if

any, States which have escaped this unpleasant experience, nor has it fallen to the lot of our own to wholly avoid it. To bring to your notice, at this time, the radical changes and repairs greatly needed at the Agnews State Hospital, would only be to weary you with details concerning which you are already quite familiar, and to which your attention has been directed in former reports. Briefly stated, they are many, and the demand for not a few of them is imperative, and must surely receive attention at your hands in the near future. That these urgent needs are not again specifically mentioned here, should not be taken as evidence that we are unmindful of them, or do not realize their great importance.

Of the many and, at times, needlessly deferred measures which are perennially brought to the attention of legislative bodies and Boards of Managers, is that of the disposition to be made of the criminal insane. Of the fact that some of the older and more progressive States have already made suitable provision for their segregation and care, we very well know; that our own has not, we equally well know. From homicides, all the way down the calendar, to the lesser and petty offenders, they are to be found in all our State Hospitals, mingling freely and on terms of easy familiarity and a common footing with the other patients; they are a constant source of anxiety, perplexity, and even danger to those having them in charge; and, obviously, the arrangement is all wrong and unfair that makes this vicious and demoralizing association possible. Neither by reason of their construction nor by way of arrangement are the wards of our hospitals adapted for their safe detention or care; the improvisation of keys and other means of escape are not only possible but easy; and—having escaped—by reason of that subtle and, oftentimes, trained criminal instinct, which is so difficult to meet and circumvent, their apprehension is all but impossible of accomplishment. Certainly the State of California should at once provide suitable accommodations for this class of insane persons—preferably either attached to or in close relation to one of its penal institutions—and thus remove one of the most embarrassing and, withal, demoralizing features of one of our greatest of charities. The segregation of the criminal insane is a matter not difficult to bring about, should be unattended by any unusual outlay, and, furthermore, it is a just and humane measure.

The recent adverse decision of the Supreme Court, looking to the legality of the method of committing patients under the present lunacy laws, has been a source of disquiet and unrest to some of them, and not a little embarrassment to the management. Two or three habeas corpus suits have been the outgrowth of this decision, and, with a like intention in view, several letters from patients to their attorneys have been intercepted at the office, while a number have been mailed, by overly zealous friends, and reached their destinations. In most instances



AGNEWS STATE HOSPITAL—LOOKING DOWN THE AVENUE.

the attorneys, to whom these letters were addressed, have been honorable and just in dealing with the hospital and patients, while others, I regret to say—taking advantage of this defect in the law—have lent themselves to very unfair methods, not only encouraging but actually instigating such suits. As the success of such measures can only end in disappointment to those most concerned, it is to be hoped that, at the next session of the Legislature, this unfortunate oversight in our lunacy laws will be remedied, as, doubtless, it will be.

The establishment of a training school for nurses, which should have been an accomplished fact ere this, has been postponed, on account of the delay in receiving the necessary text-books, until the advent of the warm summer weather rendered it inexpedient to require the ward employés to enter upon such a course of study. A little later it is hoped to proceed with the organization of classes, which will doubtless improve the character of the service, as well as place the medical work of the Hospital upon a more satisfactory basis.

The Hospital farm, dairy, gardens, and live stock (including in the latter a herd of some sixty Holsteins, of which the State may well be proud) have received the most scrupulous care and attention, are in excellent condition, and a source of great benefit and no small revenue to the institution. The grounds and lawns about the buildings have been enlarged and beautified by the addition of ornamental trees, palms, and shrubs, with new and improved walks and drives, making it possible to furnish the patients with the most restful and luxurious resorts in which to pass their many tedious and monotonous hours.

And what has been said of the farm may, with equal propriety, be said of the other departments of the Hospital. Never, since my connection with the institution, have the engineering, laundry, kitchen, bakery, and, indeed, all branches of the Hospital service, been conducted more satisfactorily or with less friction than at the present time. Many of the employés are overworked, and not a few of them are underpaid, but the mass of them are doing good work, cheerfully and without complaint, and are entitled to the heartiest thanks and fullest appreciation for the great service they are rendering the Hospital and myself as its executive-officer. They are the men and women "behind the guns," and upon their faithfulness and fidelity the success or failure of an administration largely depends.

Religious services have been conducted as usual by Rev. A. V. Raggio, Rev. W. P. Grant, Rev. E. H. Benson, and others, to whom we are under obligations for this gratuitous contribution of their time and energy. It is to be regretted that, as yet, no arrangement has been made for a proper compensation for such services.

The mere shred of a hospital library, remaining, has been somewhat enlarged upon by generous contributions of books and magazines from

Mr. Otheman Stevens, Secretary of the Commission in Lunacy, Messrs. Upham and Hale, of the Board of Managers of the Hospital, Rev. E. H. Benson of Santa Clara, and some others. We are much in need of a quantity of light and cheerful reading for the patients, as there are few things which seem to afford them greater pleasure and comfort.

The weekly dances and other amusements have continued much as in former years, with an occasional open-air concert by brass bands from the Santa Clara College. For this latter diversion we have to thank Rev. A. V. Raggio, through whose instrumentality it has been made possible for us to indulge in this highly appreciated luxury. The Christmas entertainments have remained a pleasant feature of the Hospital service, generous and varied contributions having been received from friends of the Hospital upon these occasions, making this the gala day of the year.

There have been two changes in the official and none in the clerical staff of the Hospital during the past two years. Mr. H. A. Braden, temporarily absent on an Alaskan trip, returned on February 28, 1901, and resumed his duties as Supervisor, vice Mr. Charles E. Wilson, resigned. Miss A. L. Fitzgerald, after nearly three years of satisfactory service as Matron, resigned on May 18, 1902, to take a similar position in one of the Government Hospitals in the Hawaiian Islands. She was succeeded by Miss C. G. Patterson, who brings to the Hospital a most thorough education and ripe experience acquired in the hospitals and training schools of New York City and the Johns Hopkins Medical School, the U. S. Government Hospital Service, and, more recently, as Superintendent of Nurses for three years in the California Hospital of Los Angeles. With the above exceptions, the official and clerical staff remains as upon the occasion of my last report, faithfully discharging the duties of their various positions.

As the matter of the new artesian well, now being bored upon the Hospital grounds, and the proposed steel water-tower (for each of which an appropriation of \$5,000 was made at the last session of the Legislature) have been touched upon in your own report, I refrain from any further mention of them here. For a like reason, the estimate for appropriations needed for the support of the Hospital, for the ensuing two fiscal years, is also omitted, reference being made to your own estimate for the necessary details.

It is now a little over three years since, at the kindly suggestion of His Excellency, Governor Henry T. Gage, I was honored by a call from you to the Medical Superintendency of the Agnews State Hospital; a position to which I neither aspired nor, in all candor, under existing circumstances felt that I should attempt to fill. The protracted struggle

with my convictions and better judgment was the sole occasion of the hesitation and misgivings with which I was finally induced to accept of the proffered place; and that I have not long since vacated it, has been wholly in compliance with the expressed wishes of those having the right to make such a request of me. The barrier in the way of my accepting and continuing in this service being, as you well know, the extremely delicate and uncertain state of my health.

That I have fallen short of high ideals and the attainment of many measures for the betterment of the institution, earnestly and ardently resolved upon, I need hardly assure you; and I find scant solace in the knowledge that the full accomplishment of these ends was made all but impossible by reason of a legacy, handed down from the past, consisting of a bewildering maze of entangling, and even, at times, threatening situations, together with the ever-present disadvantages incident to our environments, local traditions, and recent stormy history.

If we add to these the further perplexities consequent upon recurring political upheavals; the constant agitation of our State institutions by a critical if, indeed, always a friendly press; the unrest set going among the employes thereof through the agency of labor unions, with not a scintilla of authority vested in the executive heads to meet such exigencies; and, finally, the existence of higher courts of appeal and jurisdiction, with their plenitude of dissimilar if not actually conflicting views and opinions; it will be made still more apparent that the successful carrying out of a clearly-defined and well sustained line of procedure in the management of our State institutions is attended by almost insuperable barriers and difficulties. Hence I cannot but feel that, in arriving at an estimate of the degree of success which has attended the present administration of the affairs of the Hospital, you will generously not lose sight of these embarrassing, and, withal, unavoidable obstacles, which have stood in the way of a full consummation of those hopes and wishes so devoutly looked forward to and for the existence of which we can in nowise be held responsible.

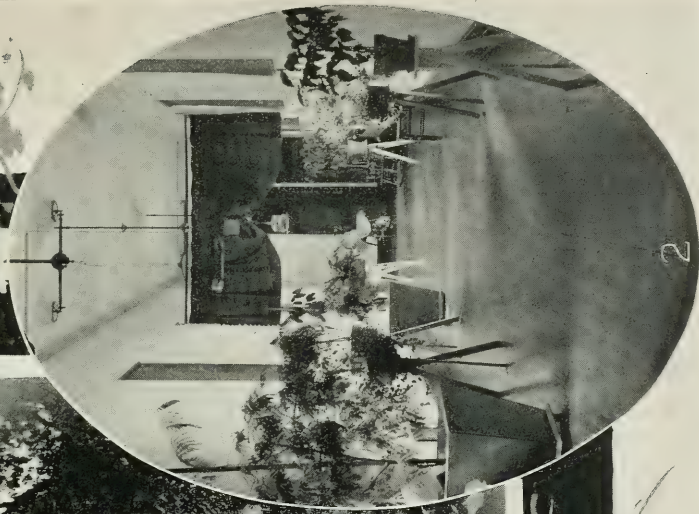
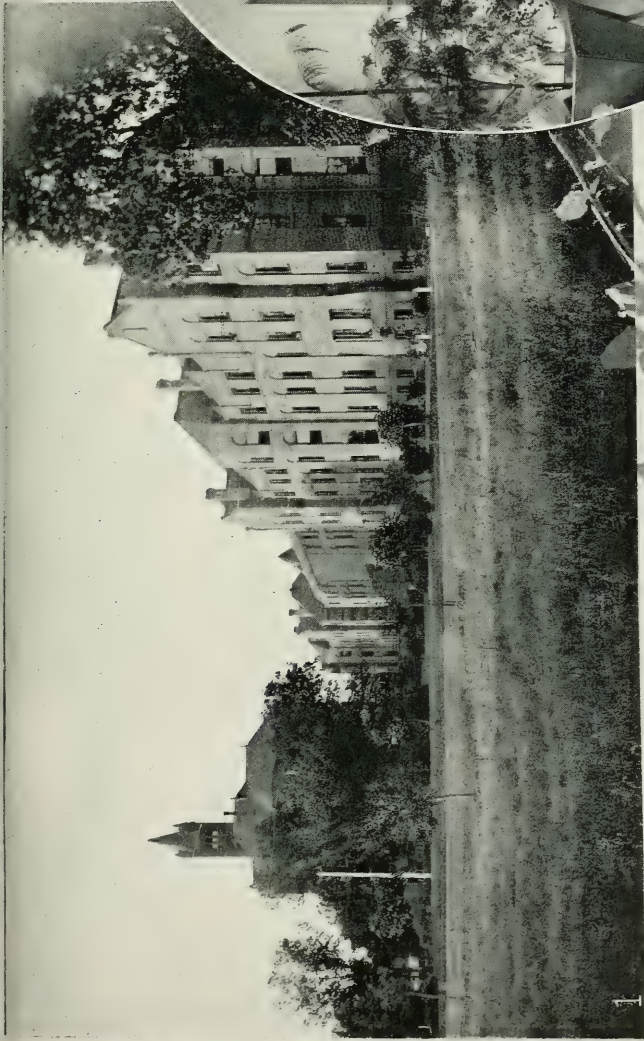
Before the biennial report of the State Commission in Lunacy (of which this will form a very insignificant part) will, in all probability, appear in print, my resignation will have been placed in your hands and been acted upon, and our relations in the conduct of the Agnews State Hospital finally severed—together with those other ties (of whatsoever character they be) which have been formed during the close intimacy extending over the period of my service here.

I will not attempt to disguise from you the fact that, in looking forward to this separation, I am conscious of a pulling at my heartstrings and a half-fledged desire that these friendly relations might continue to exist. This, however, may not be; as I feel that, if only in deference to my own interests and inclinations, very soon the responsibilities and

cares of the office should fall upon another. For many months past, on account of the state of my health, I have felt unequal to the discharge of its onerous duties and obligations, and never, perhaps, so much as at the present time.

For my successor, whoever he may be, I can wish no better fortune than that he may receive, at your hands, the same kindness, courtesy, and wise counsel that you have unfailingly extended to me, and for which I shall always remain profoundly grateful.

J. A. CRANE,
Medical Superintendent.



MENDOCINO STATE HOSPITAL.—1. MAIN BUILDING, WITH ADMINISTRATION BUILDING TO THE LEFT; 2. CORRIDOR IN WOMEN'S DEPARTMENT.

REPORT

OF THE

MENDOCINO STATE HOSPITAL.

NOTE: For statistical tables, see Appendix.

REPORT OF THE MEDICAL SUPERINTENDENT.

For the Fiscal Year ending June 30, 1901.

To the Honorable the Board of Managers of the Mendocino State Hospital:

GENTLEMEN: I herewith submit to you my annual report for the fifty-second fiscal year.

As another report will be required of the Superintendent before the next meeting of the Legislature, no extended report, other than the usual statistics, will be necessary.

The number of patients in Hospital at the end of the year was 611. The annual daily per capita was 43.3 cents. This includes the entire expense of food, clothing, fuel, care, and medical attendance, and salaries of the Board of Managers, officers, and employés.

Very respectfully,

E. W. KING,
Medical Superintendent.

REPORT OF THE MEDICAL SUPERINTENDENT.

For the Fiscal Year ending June 30, 1902.

To the Honorable the Board of Managers of the Mendocino State Hospital:

GENTLEMEN: I herewith present you the ninth annual report of the Mendocino State Hospital for the year ending June 30, 1902.

The past year has marked quite an important epoch in our history,

because of the improvements which the appropriation of money by the last Legislature has enabled us to make.

Two hundred and seventy acres of land have been added to the Hospital tract. A large portion of this land is first-class Russian River bottom; nearly all of it will raise alfalfa if irrigated, which can easily be done with our water-supply; it is well adapted to raise grain and all kinds of garden vegetables, also the small and large fruits; in fact, almost everything necessary in the line of fruits and vegetables for the Hospital can be raised on this place.

The purchase of this land has enabled us to procure a dairy of thirty cows. Fifty acres have been sown to alfalfa, from which a small amount of hay will be procured this season, but next season it will furnish plenty of alfalfa hay and pasture for the dairy. This will give us good milk at a minimum cost. Probably forty to forty-five cows will furnish the Hospital with plenty of milk.

SEWER.

The last Legislature appropriated the sum of \$2,500 for sewer pipe. This pipe is used for conducting the sewage from the Hospital to the land recently purchased, where it is to be used for irrigation and fertilization. This, it is believed, will effectually dispose of the sewage and prevent it from becoming a menace to health or a nuisance to others. This sewer system is now nearly completed and will be in operation in a short time.

ELECTRIC LIGHT.

About the first of March, a contract was let to Charles F. Sloane & Co., of San Francisco, to put in an electric light plant and wire the Hospital buildings for same. This plant was to be of a capacity of four hundred and fifty lights. The motive power was to be water and steam, the water power to be generated by a Pelton wheel of 45 horse-power, and the steam power by an engine of the same capacity. The water to run the Pelton wheel is taken from the supply pipe which furnishes the Hospital. This pipe is 12 inches inside diameter at the Hospital, and increases in size from 12 inches to 13, then 14, and finally near the dam to 24 inches. The water in the reservoir at the head of the pipe-line is about 300 feet above (altitude) the Hospital buildings, giving a pressure on the wheel of 135 to 140 pounds to the square inch. At this time (June 30) we are lighting with water power, with a large amount of waste water flowing over the dam. The reservoir above the dam has a capacity of about five million gallons. By increasing the height of the dam four or five feet its capacity would easily be more than doubled. This could be done at a small expense (\$500 or \$600), and would greatly increase the water-supply, especially in dry seasons. Should

the water-supply be short in the fall months, the dynamo will be run with steam until the rains increase the water-supply. So far the electric light plant has proved perfectly satisfactory; the light being clear and steady and it seems a great luxury after using dirty gasoline for years.

The expense of running the plant by water is practically nothing. The cost of wiring the buildings and putting in the lighting plant was \$6,050, paid from our Contingent Fund. A brick building, 24 x 50 feet, was built by the patients and employ  s to house the plant, at a cost of about \$900, paid also out of the Contingent Fund. The completion of this lighting plant will materially lessen the cost of lighting the Hospital and at the same time give us a good, clean light.

READING-ROOM FOR EMPLOY  S.

During the last year a large room in the basement of the Administration building has been fitted up for the employ  s. This is a great convenience. When off duty the employ  s can meet there for amusement or social intercourse. This will have a tendency to make them more contented and satisfied with their surroundings. The room has been nicely furnished, electric lights have been put in, and in winter it will be heated by steam.

TRAINING SCHOOL.

Under the direction of the State Commission in Lunacy, training schools have been established in all of the State Hospitals, for the training of nurses and attendants for the insane. This is a decided step in advance, and will without doubt result in better and more systematic methods in handling this most unfortunate class of our citizens, in bettering their condition, and it is to be hoped it will result in a larger percentage of cures, as upon proper nursing depends largely their prospects of recovery. A class was formed in this Hospital in March, 1902. The course consists of two years of eight months each, with lectures and clinical instruction by the medical staff.

IMPROVEMENT OF GROUNDS.

During the fall of 1901 the unsightly grounds in front of the Superintendent's residence were greatly improved by confining the water of the creek to a proper channel, reinforcing its banks where necessary by planting willows to prevent the banks from washing in high water, and filling low places with earth. Nearly one thousand loads of loam were hauled and put in place, the whole leveled and trees and shrubs planted. The grounds around the hospital buildings have been laid out and as much work done on them as our limited means would permit, no money ever having been appropriated to this Hospital for improvement of the grounds.

SPRAY BATHS.

Since our last biennial report, spray baths have been put in on our wards. They have proven a great success. Their great advantage is absolute cleanliness, as the water under no contingency can be used a second time. Other advantages are: Facility in bathing—at least a half dozen patients can be properly bathed by the new method while one was being bathed by the old; the saving of water and fuel—much less hot water being used than by the old tub method; finally, most patients like the bath better.

OPERATING ROOM.

A small operating room has been fitted up in the Administration building and furnished with an up-to-date operating table, and instruments, etc., necessary for meeting almost any emergency. It is impossible to meet the requirements of modern surgery without an operating room properly fitted up and furnished with the necessary instruments and all the modern improvements. Trained nurses are also a necessity, and these our training school will give us.

CLASSIFICATION OF INSANE.

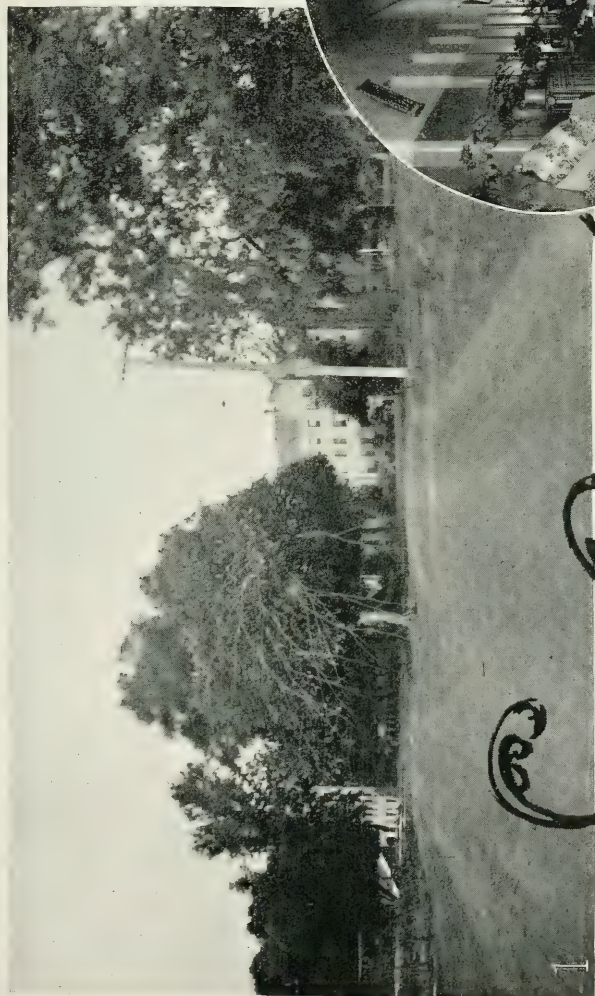
During the past year a distinct advance has been made in the State Hospitals by the adoption of a uniform mode of classification. This will enable each Hospital to so classify its cases that it will conform to one uniform method; and while this classification may be far from perfect, it will certainly do away with a great amount of confusion in the arrangement of statistical tables, and at the same time furnish more reliable information regarding the causes and probable termination of each class of cases.

TELEPHONES FOR WARDS.

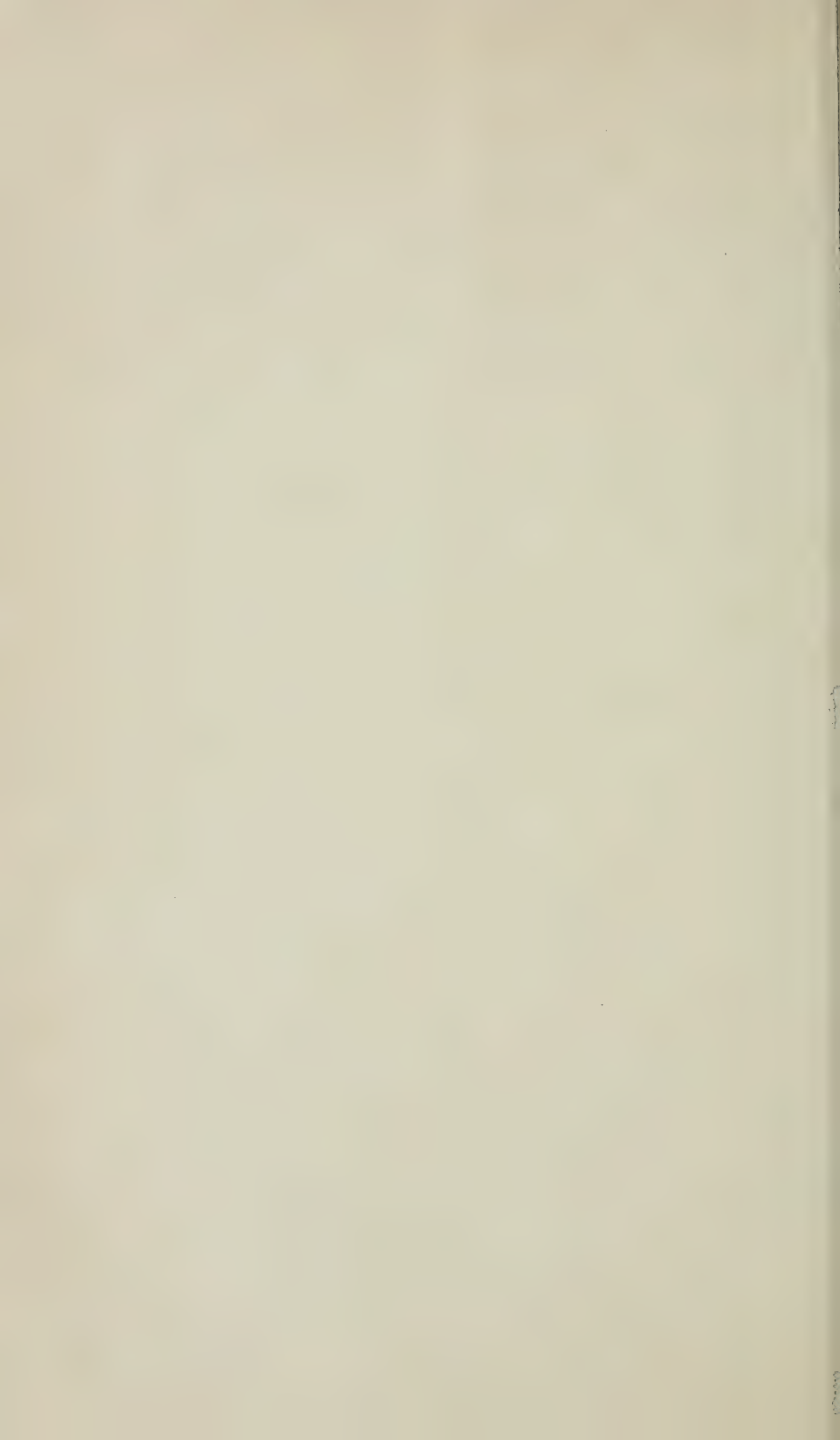
A system of telephones has been put in, connecting the wards, Steward's department, and stable with the main office, which is a great convenience and saves much time.

SANITARY CONDITION OF HOSPITAL.

Plenty of good, pure water and fresh mountain air have largely contributed to the health of the patients, which as a rule has been good. The sanitary condition of the Hospital is excellent, and we have had no epidemic or zymotic diseases, except a few cases of la grippe during the spring months. Cases of tuberculosis are common in all of the State Hospitals, and I cannot recommend too strongly the erection, at each Hospital, of a cottage building for patients afflicted with tuberculous and other contagious diseases.



MENDOCINO STATE HOSPITAL—1. MAIN DRIVEWAY, WITH FEMALE DEPARTMENT IN THE DISTANCE; 2. A WOMAN'S WARD.



CRIMINAL INSANE.

There are in the State Hospitals of California quite a large number of criminal insane and insane convicts. These cases ought never to be sent to the State Hospitals. To become insane is a great calamity, and these unfortunates ought to be protected from contact with insane criminals and convicts. To mix them is a great outrage.

A building should at once be constructed at one of the State Prisons where all such cases could be properly and economically cared for. This would to some extent relieve the congestion of the State Hospitals and at the same time relieve the State from the opprobrium of mixing criminals and convicts with the unfortunate insane.

PROTECTION OF WATER-SUPPLY.

The water-supply of the Hospital is taken from South Mill Creek, a small stream whose head is about three miles from the hospital. The cañon through which the waters flow is for the greater part covered with timber, particularly along the banks of the creek.

During the months of August, September, and sometimes October, particularly in dry seasons, the water-supply is barely sufficient to meet the demands of the Hospital. The land on each side of Mill Creek and over which the water flows is owned by several different persons, some of whom have attempted to cut the timber along the creek. The State has an undisputed right to the water in the creek, but it is believed that the removal of the timber from the banks of the creek will materially lessen the flow of water and result in great and irreparable injury to the Hospital and the State. An injunction suit is now pending in the courts to determine the right of the owners of the land to remove this timber.

There seems to be but one sensible way to settle this matter and to properly protect the water-supply of the hospital, and that is to acquire title to the land on each bank of the creek from the lower dam to the headwaters of the creek. This land is not valuable, and probably a strip 150 feet wide on each side of the creek would be sufficient to protect the water-supply. The total amount of land would not be more than 80 or 100 acres, and as this is mountain land, the price per acre would not be large.

This is an exceedingly important matter and some action should be taken at an early date to get an option on this strip of land, or, failing this, to commence a suit to condemn the same, and our Senator and Assemblyman who are to be elected at the next general election should be made acquainted with the facts, that they may present the matter properly to the next Legislature, with the view, if possible, of getting an appropriation sufficient to procure this land.

ASSEMBLY HALL.

This State Hospital is yet without an assembly hall. All the other State Hospitals have large, roomy, well-furnished assembly halls. They are everywhere recognized as a necessity in the treatment of the insane. Here we have no place where the patients can assemble for church service or for amusement. The need of an assembly hall is great. As originally planned, the assembly hall is to be placed between the Administration building and the connecting corridors of the ward buildings and form the connection between them.

I would recommend that it be constructed with a basement, with a ward above capable of accommodating twenty-five to thirty patients, and a hall over all. The cost of this building, including the construction of the ward and furnishing same, is estimated at \$30,000.

STATISTICAL INFORMATION.

There have been committed to this Hospital during the last year 140 patients. Of these, 74, or 51.42 per cent, were native born; 57, or 40.71 per cent, were foreign born; and 9 were of unknown birth.

The meager history of these cases given in the commitments, and the inability or indisposition of the patient or his friends to supply this want, makes it exceedingly difficult to judge correctly of the causes of the mental derangement.

Thirty-four, or 24.28 per cent, of these cases used alcohol in some form and to such an extent as to have been considered one of the causes of the disease.

In 11 cases heredity was given as a cause, and in 9 cases drugs, principally opium, in some form.

Twenty-seven, or 19.28 per cent, were above the age of sixty, and 13 of these were more than seventy years old. Many of these aged persons were cases that ought not to have been sent to the Hospital. They could and should have been cared for in the county hospitals and almshouses of the several counties from which they were sent.

The number of patients discharged recovered was 51, or 36.42 per cent of those committed; 8 were discharged improved, 6 unimproved, and 3 as not insane.

The number of deaths during the year was 67. Of this number, 16, or 23.88 per cent, were above the age of seventy. Ten died from dementia paralytica; 3 of these were in the third decade, 3 in the fourth, 3 in the fifth, and one above sixty years. 14.92 per cent of the deaths were from dementia paralytica.

APPROPRIATIONS REQUIRED.

The number of patients in the Hospital June 30, 1902, was 617. It is safe to estimate that the increase which has averaged since the Hospital was opened (something over 4 patients per month) will continue, and

this would give us more patients than we could accommodate. I have therefore estimated for 700 patients for the next two fiscal years, at 45 cents per capita:

For the fiscal year ending June 30, 1903.....	\$114,975 00
For the fiscal year ending June 30, 1904.....	114,975 00
	<hr/>
	\$229,950 00

ACKNOWLEDGMENTS.

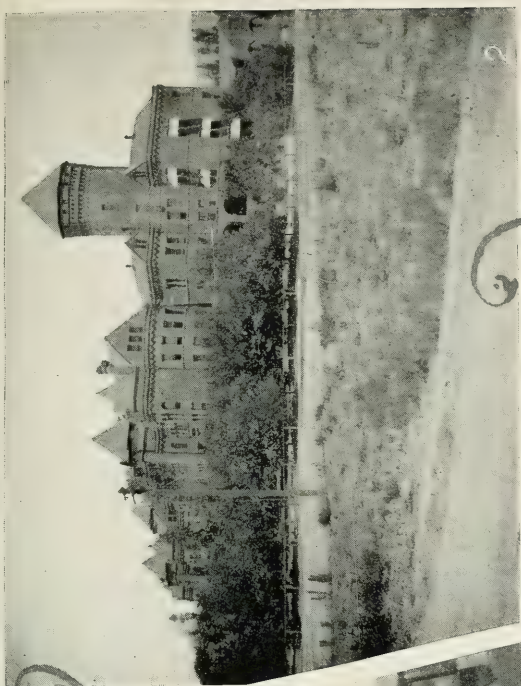
We desire to make grateful acknowledgment to the many friends of the Hospital and patients for their generous donations of money, clothing, and other articles for our Christmas entertainment; also, to Mr. Mart Bechtol, B. S. Hirsch, Mrs. Oakley, Mrs. Wigkoff, Mrs. Butler, Mrs. Hammeken, Mrs. Templeton, and many others for donations of books, periodicals, and papers, which have been of great interest to the patients.

We are under obligations to the publishers of the following newspapers, which have been sent here regularly from the office: Oakland Enquirer, Point Arena Record, Napa Register, Record-Union, La Voce del Popolo, Ukiah Times, Napa Reflector, Abend Post, A Uniao Portuguesa, Dispatch-Democrat, Yolo Mail, Marin Journal, Breeder and Sportsman, Mendocino Beacon, Santa Cruz Surf, Colusa Sun, L'Italia, Staats Zeitung, Ukiah Press, and Marysville Appeal.

I desire to express my sincere thanks to the officers and employés who have coöperated with me in the management of the Hospital; and to you, gentlemen of the Board of Managers, for your cordial coöperation, your advice and support at all times in matters pertaining to the management and welfare of the Hospital, and for the liberality which has always characterized your actions.

Very respectfully,

E. W. KING,
Medical Superintendent.



2



SOUTHERN CALIFORNIA STATE HOSPITAL—1. RESIDENCE OF MEDICAL SUPERINTENDENT; 2. VIEW OF THE MAIN BUILDING.

REPORT

OF THE

SOUTHERN CALIFORNIA STATE HOSPITAL.

NOTE: For statistical tables, see Appendix.

REPORT OF MEDICAL SUPERINTENDENT.

For the Two Fiscal Years ending June 30, 1902.

To the Honorable the Board of Managers of the Southern California State Hospital:

GENTLEMEN: Pursuant to custom, I hereby report to you for the fifty-second and fifty-third fiscal years ending June 30, 1902. In doing so, I shall eliminate all but the practical data which will be useful and which seems necessary for your future action in matters relating to the welfare of this Hospital.

I first draw your attention to the statistical tables, which give in detail everything relating to the movement of patients, expenditures, etc., the latter of which, with other reports from that department, will be found under the head of Steward's Report.

It seems like an unnecessary intrusion to be obliged, in each biennial report, to draw your attention to the conditions and interests of the Hospital, when each of your honorable body is so well acquainted with the same, but it is through this channel that we must reach the ears of the Commission in Lunacy and the Legislature, upon whose appreciation of the facts herein stated we must depend for further appropriations and other assistance commensurate with our necessities.

I hereby present a short résumé of the vital statistics since the opening of the Hospital:

Since August 1, 1893, the date on which the institution was opened for the reception of patients, to June 30, 1902, 2,102 patients were admitted; of this number, 1,392 were men and 710 were women.

During the same period, 864 patients were discharged recovered, giving a percentage of recoveries to the total admissions of 41.10 per cent. Of the number discharged recovered, 591 were men and 273 were women, the percentage of recoveries for men being 42.45 per cent and for women 38.45 per cent, a difference of 4 per cent in favor of the men. The average annual recovery rate to admissions for both sexes for the nine years past has been 42.81 per cent, or approximately for every nine admitted, four got well. In addition to the number (864) discharged recovered, 30 were discharged improved, 28 unimproved, 6 not insane, 1 by order of court, 64 were transferred to northern hospitals, and 372 died. Of the number who died, 271 were men and 101 were women. Comparing the number (both sexes) who died with the whole number under care and treatment, for each year, gives a death-rate of 5.96 per cent. For the men alone it is 6.56 per cent, and for the women alone, 4.69 per cent—a difference in favor of the women of nearly 2 per cent. The average death-rate to the whole number treated, for all, for the past nine years was 5.85 per cent. These figures show an average of recoveries somewhat above the maximum of the institutions of the country, and the death-rate about the general average. These questions are so frequently asked, and are of necessity of the greatest importance to those most interested in the insane, that I need not apologize for presenting them. See appended tables for data covering last two years.

The relative number of commitments from the various counties does not vary much from the proportion of previous years. Of the 450 admitted during the term, 290 were born in the United States and 149 (or 33.11 per cent) in foreign countries, and 11 unascertained.

We have no table showing the length of residence in the State of those admitted during the term. The question is frequently asked, "Is there more insanity in California than in other States?" At first glance it would be answered in the affirmative and comparative statistics might prove it, but when all circumstances, including our conditions and environments, are considered, I should answer no. First, the native races of the State and other offsprings are not particularly prone to mental diseases. In fact, of the 450 committed, only 32, or 7.11 per cent, were born in California, which of itself is sufficient answer. A large portion of the people committed here are temporarily sojourning in this State on account of their health, or are from the high seas, which cannot be legitimately credited to California, and another large proportion float in from the arid States or Territories. The fact that there are nearly twice as many men as women is corroborative evidence that this state of affairs largely exists. Nearly every State of the Union and foreign country is represented in the make-up of our population. With

the extension of our empire, this condition will increase rather than diminish, and I expect our reports in the near future will show representatives from among our fellow-citizens in the Sandwich Islands, Guam, the Philippines, and Puerto Rico. Surely, our field is no "pent-up Utica," and the probabilities are good for a continuation of the present state of affairs.

Our hospitable climate and other attractions are bound to affect our statistics. I quote from my report of 1896 on another cause which is materially increasing our hospital population, and will continue to do so until some effective legislation is enacted to stop it: "There is another element which enters into the dilation of insane statistics in California. I refer to narcomania. Nowhere else in the United States is the abuse of opium, morphine, cocaine, etc., so prevalent as on the Pacific Coast—and particularly in California. The Orientals have planted a pernicious habit in our soil. It has thrived. Its noxious influences permeate every stratum of society. All the State institutions for the insane have to deal with the insanities induced by drug inebriety, and the large ratio of mental aberration in our State is due, in a great measure, to the dissemination of this vice, which threatens the vitiation, physical, mental, and moral, of future generations. The number of patients who are committed as insane from narcomania is steadily on the increase. The asylums, hospitals, almshouses, penitentiaries, jails, and police stations give testimony to the accuracy of this statement. This class of dependents adds largely to the burdens of the taxpayer; and could some statute be devised by which the evil might be arrested, the ultimate results would eloquently indorse the wisdom of our lawmakers. I would suggest that an earnest appeal be made to the Legislature for the enactment of such severe inhibitory penalties as shall discourage the indiscriminate sale or distribution of drugs of this character. In my judgment, it should be made a felony to barter, sell, or give away opium, morphine, cocaine, chloral, and other narcotics, except upon the prescription of a registered physician, the said prescription accurately to state the amount requisite, *and to be but once filled*. There are ordinances touching upon this matter in some of the larger municipalities of California, but a statutory regulation would be more expedient, and less liable to evasion."

If we do not use our best efforts to remove the causes of the disease we must expect to take the consequences, and this applies directly to the subject at hand.

There has been under consideration at different times the feasibility, as well as the necessity, of making provision for the segregation of our tubercular patients. The demands as a whole have been so great that other matters, and to my mind less important ones, have been allowed

to crowd out this necessary arrangement. The details for accomplishing this very much needed improvement I will not suggest at present, but urge that it be not delayed. It would cost no more to care for these people when segregated than otherwise, and the general condition, as well as health of all concerned, would be materially increased. We are doing everything possible with the facilities at hand to improve the condition of our patients, first to cure them, and second to relieve and make life as tolerable and pleasant as possible to those who are incurable.

Our 400-acre ranch, which is largely under intense cultivation, our shops, wards, and grounds, afford employment for many of our chronic and convalescent male patients; the laundry, sewing-room, and wards to an equally large percentage of female patients. Our parole system, which we take advantage of whenever practicable, if properly used, is advantageous to both the patient and the Hospital, although it occasionally deprives us of valuable assistance.

We have not much to offer our patients in the way of amusement, but hope for better conditions in the near future. Our weekly entertainments are always enjoyed by a large number of patients. The last two Christmas events have been enlivened by Christmas trees and festivities, which proved a great success, none being overlooked, and about four hundred responses were received from the friends of patients last year. This entailed much hard work, but our efficient Supervisor and Matron, who had it in charge, added to their already well-established reputations for hard work and ability.

Walking parties and occasional rides constitute, with the matters heretofore mentioned, our curriculum of amusement and pleasure. Generous and kindly disposed citizens have also occasionally favored us gratuitously with concerts and readings. I would also in this connection thank those who have generously supplied the institution with papers, periodicals, and other reading matter for the past two years.

The amount of work done in the various departments will be found in the Steward's report, which is herewith attached, and will impart an intelligent idea of the satisfactory manner in which the time of many of the chronic and convalescent patients is employed.

Our ever present necessities for the construction of more buildings, and general facilities for accommodating and caring for patients, are more apparent than ever. The new wing, which is approaching completion, will be devoted entirely to female patients, and will be fully occupied, or contain upward of sixty patients on a ward, as soon as completed. This will relieve one ward, which will be occupied by men. You are fully acquainted with the amount required for improvements, and will present the same in your report; also the necessary appropriations for support and maintenance for the next biennial term. These



SOUTHERN CALIFORNIA STATE HOSPITAL—EAST AND WEST WINGS.

figures are based upon a per capita of 42 cents, and will amount to \$190,000 for maintenance, and \$110,000 for salaries; total, \$300,000.

A new administration building, which is designed to furnish room for some patients, as well as accommodate the general business of the institution, and quarters for part of the officers, will be asked for, to cost \$100,000; furnishing the same, \$10,000. This includes raising the hall-ways between the present wings to three stories, connecting them with the new building, elevator, sewerage connections, etc.

A cottage for men, two stories high and basement, first floor of which will be devoted to old and decrepit patients, and so arranged that they can get out upon the ground, to cost \$25,000; furnishing the same, \$3,000; which will include water connections, sewerage connections, and hot-air furnaces.

The farm and grounds need fencing, and new cement irrigating ditches and flumes are required. This will include fencing the entire east and north sides of the ranch where the institution stands; also fencing-in a small pasture in front of the barn, and the twenty acres upon which the pumping plant is situated, and other small improvements to the grounds, all of which will cost \$7,500. We have been putting off from time to time this request, but the good of our property, both as to utility and looks, demands that this work should be done immediately.

We have already asked to have new boilers installed, the cost to be paid from our Contingent Fund, which will undoubtedly be allowed; otherwise, we shall have to go before the Legislature for this necessity and ask that it be made a matter of urgency.

The recommendation for the amount necessary to care for the tubercular patients will depend somewhat upon the action of the Commission in Lunacy. If we care for our own only, \$10,000 should be expended for fitting up for our own immediate necessities. If we provide for all those in the State, I believe that \$25,000 will cover the amount necessary for the present and near future. As can readily be seen, the latter plan will be a decided saving, and I believe will be better for the patients, as more elaborate and fixed facilities can be adopted and applied to their care and treatment. If the latter plan should be considered feasible, it should be done by a special appropriation, and not charged wholly to any one hospital, and would require a moderate appropriation for support of same.

The State Commission in Lunacy has favored us with regular visits during the last two years. We have enjoyed these visitations and have endeavored to carry out its suggestions as far as our facilities would permit.

I desire to thank your Honorable Board for the evidences of your

continued confidence and support. With few exceptions, the officers and employés have been faithful and efficient in the discharge of their duties, which are usually arduous and wearing. Many of our officers and heads of departments have been with us from the opening of the Hospital, which fact, in itself, is sufficient evidence of their fitness. To all, in whatsoever capacity, who have faithfully discharged their duties, I hereby return thanks.

Respectfully submitted.

M. B. CAMPBELL,
Medical Superintendent.

APPENDIX.

TABLE A.

Showing Number of Attacks in Those Admitted during the Biennial Period ending June 30, 1902.

YEAR ENDING JUNE 30, 1901.

	Stockton.			Napa.			Agnews.			Mendocino.			So. California.			Grand Total.		
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
First.....	207	95	302	106	55	161	68	56	124	72	57	129	106	42	148	559	305	864
Second.....	23	26	49	32	23	55	16	14	30	16	20	36	24	10	34	111	93	204
Third.....	5	4	9	3	3	6	6	3	9	2	3	5	3	1	4	19	14	33
Fourth or more.....	5	5	10	7	6	13	2	6	8	1	4	5	1	1	2	16	16	32
Unknown.....	---	---	---	30	14	44	21	4	25	10	1	11	4	2	6	65	21	86
Totals.....	240	125	365	178	101	279	113	83	196	101	85	186	138	55	193	770	449	1,219

YEAR ENDING JUNE 30, 1902.

	Stockton.			Napa.			Agnews.			Mendocino.			So. California.			Grand Total.		
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
First.....	208	113	321	106	66	172	90	41	131	72	15	87	118	68	186	594	303	897
Second.....	34	17	51	32	19	51	11	14	25	14	9	23	24	19	43	115	78	193
Third.....	3	8	11	3	3	6	2	1	3	3	2	5	4	4	8	15	16	31
Fourth or more.....	2	3	5	6	8	14	5	3	8	---	2	2	9	2	6	22	20	42
Unknown.....	---	---	---	33	5	38	33	5	38	22	1	23	8	1	9	96	12	108
Totals.....	247	141	388	180	101	281	141	64	205	111	29	140	163	94	257	842	429	1,271

TABLE B. *Showing the Counties from which the 2,490 Patients were Committed during the Biennial Period ending June 30, 1902.*

Counties.	Stockton.		Napa.		Agnews.		Mendocino.		Southern California.		Total
	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	
Alameda	50	69	11	18	23	19	14	13	0	0	217
Amador	3	5	5	1	0	0	0	0	0	0	14
Butte	0	2	9	13	0	0	0	0	0	0	24
Calaveras	5	10	0	0	0	0	0	0	0	0	15
Colusa	0	0	7	1	0	0	1	0	0	0	9
Contra Costa	9	16	3	7	0	0	0	0	0	0	35
Del Norte	0	0	2	1	0	0	2	0	0	0	5
El Dorado	4	2	0	0	0	0	0	0	0	0	6
Fresno	17	20	1	1	0	0	0	0	0	0	39
Glenn	0	2	3	1	0	1	0	0	0	0	7
Humboldt	1	0	15	7	0	0	1	0	0	0	24
Inyo	3	0	0	0	0	0	0	0	0	0	3
Kern	9	14	2	0	0	0	0	0	0	0	25
Kings	1	2	1	0	1	0	0	0	0	0	5
Lake	0	0	0	0	0	0	6	3	0	0	9
Lassen	0	1	3	3	0	0	0	0	0	0	7
Los Angeles	0	0	4	1	5	0	22	0	105	151	288
Madera	7	5	0	0	0	1	0	0	0	0	13
Marin	0	0	1	1	1	1	9	14	0	0	27
Mariposa	4	1	0	0	0	0	0	0	0	0	5
Mendocino	0	0	1	0	1	0	15	17	0	0	34
Merced	7	3	0	0	0	0	0	0	0	1	11
Modoc	1	0	1	1	0	0	0	0	0	0	3
Mono	1	0	1	1	0	0	0	0	0	0	3
Monterey	1	1	1	0	17	16	0	0	0	0	36
Napa	0	0	15	11	0	0	0	0	0	0	26
Nevada	6	5	1	1	0	0	0	0	0	0	13
Orange	0	0	0	0	1	0	1	0	4	7	13
Placer	15	19	3	0	0	0	0	0	0	0	37
Plumas	0	0	2	0	0	0	0	0	0	0	2
Riverside	0	0	0	0	0	0	2	0	12	16	30
Sacramento	29	29	4	7	0	1	1	0	0	0	71
San Benito	0	0	0	0	6	2	0	0	0	0	8
San Bernardino	0	0	0	0	1	0	3	0	24	25	53
San Diego	0	0	0	1	0	0	2	0	20	31	54
San Francisco	117	107	110	130	57	84	81	40	0	0	726
San Joaquin	37	33	0	0	0	1	0	0	0	0	71
San Luis Obispo	1	0	1	0	8	8	0	0	0	2	20
San Mateo	0	0	0	1	9	6	0	0	0	0	16
Santa Barbara	0	0	1	0	0	0	0	0	15	13	29
Santa Clara	0	0	0	0	53	45	0	0	0	0	98
Santa Cruz	0	0	0	0	13	17	0	0	0	0	30
Shasta	0	0	13	12	0	1	0	0	0	0	26
Sierra	0	0	2	2	0	0	0	0	0	0	4
Siskiyou	4	2	9	14	0	0	0	0	0	0	29
Solano	0	0	18	14	0	0	0	0	0	0	32
Sonoma	0	0	3	10	0	1	24	33	0	0	71
Stanislaus	4	7	0	0	0	0	0	0	0	0	11
Sutter	2	3	2	1	0	0	0	0	0	0	8
Tehama	0	0	6	5	0	0	0	0	0	0	11
Trinity	0	0	3	1	0	0	0	0	0	0	4
Tulare	13	9	0	1	0	0	0	0	1	0	24
Tuolumne	8	5	0	0	0	0	0	0	0	0	13
Ventura	0	0	1	0	0	0	2	0	12	11	26
Yolo	0	1	7	9	0	0	0	0	0	0	17
Yuba	4	10	5	0	0	0	0	0	0	0	19
State Prison at San Quentin	0	1	2	4	0	1	0	6	0	0	14
State Prison at Folsom	2	4	0	0	0	0	0	0	0	0	6
U. S. Naval Stat'n, Mare Island	0	0	0	0	0	0	0	14	0	0	14
Totals	365	388	279	281	196	205	186	140	193	257	2,490

TABLE C.

Showing Those Born in the United States, Admitted during the Biennial Period ending June 30, 1902.

United States.	Stockton.		Napa.		Agnews.		Mendocino.		Southern California.		Total
	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	
Alabama	1	0	0	0	1	1	0	0	1	1	5
Arizona Territory	0	1	0	0	0	0	0	0	0	1	2
Arkansas	1	0	0	0	4	0	1	0	0	0	6
America	36	1	16	11	0	1	0	0	27	40	132
California	62	61	47	67	52	44	31	23	15	17	419
Colorado	0	0	0	1	0	0	0	1	0	0	2
Connecticut	2	1	2	3	0	0	0	0	1	1	10
Delaware	0	1	0	0	0	0	0	0	0	0	1
District of Columbia	0	0	0	0	0	0	0	0	0	0	0
Georgia	1	1	0	1	0	2	0	1	1	1	8
Idaho	0	0	0	0	0	0	0	0	0	0	0
Illinois	7	7	6	8	2	1	2	2	2	18	55
Indiana	1	4	4	0	3	2	4	1	2	3	24
Iowa	4	4	3	2	2	3	0	3	7	3	31
Kansas	1	1	1	1	0	0	1	1	3	2	11
Kentucky	4	4	0	5	0	1	1	2	1	1	19
Louisiana	4	0	3	0	0	1	0	1	0	0	9
Maine	5	0	6	4	3	2	5	2	5	2	34
Maryland	1	1	1	1	0	0	1	1	0	0	6
Massachusetts	9	11	5	6	0	2	4	0	3	6	46
Michigan	0	2	1	4	0	4	5	0	4	3	23
Minnesota	0	0	3	1	0	0	0	2	3	2	11
Mississippi	0	0	0	0	0	0	0	0	0	0	0
Missouri	9	11	11	6	1	2	2	2	7	10	61
Montana	0	1	0	0	0	0	0	0	0	0	1
Nebraska	0	1	0	0	0	0	2	0	0	1	4
Nevada	0	0	0	0	1	1	0	0	0	0	2
New Hampshire	1	1	0	2	1	0	0	0	0	2	7
New Jersey	4	1	0	0	0	2	0	1	0	1	9
New Mexico	0	0	0	0	0	0	0	0	0	0	0
New York	16	19	11	15	8	11	9	12	11	9	121
North Carolina	0	3	0	0	1	0	0	0	0	1	5
Ohio	6	14	6	7	3	2	2	4	7	12	63
Oregon	1	1	2	3	2	0	0	1	0	1	11
Pennsylvania	5	6	5	2	6	6	4	2	6	3	45
Rhode Island	0	1	0	0	0	1	0	0	1	0	3
South Carolina	0	0	1	1	0	0	0	0	1	0	3
Tennessee	3	1	3	1	0	1	0	0	3	1	13
Texas	1	4	0	1	0	0	1	1	1	1	10
United States	0	25	2	4	19	8	12	6	14	10	100
Utah	0	0	0	0	0	0	0	0	0	2	2
Vermont	3	1	2	2	0	0	2	1	0	1	12
Virginia	4	2	1	3	1	1	1	2	2	2	19
Washington	0	0	0	0	0	0	0	1	0	0	1
West Virginia	0	0	0	0	0	0	0	0	0	1	1
Wisconsin	0	3	5	2	2	2	0	1	1	2	18
Totals	192	195	147	164	112	101	90	74	129	161	1,365

TABLE D.

Showing Those Born in Foreign Countries, Admitted during the Biennial Period ending June 30, 1902.

Foreign Countries.	Stockton.		Napa.		Agnews.		Mendocino.		Southern California.		Total
	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	
Africa	0	0	0	0	0	0	0	0	0	0	0
Atlantic Ocean	0	0	0	0	0	0	0	0	0	0	0
Australia	2	1	2	3	1	0	0	0	0	1	10
Austro-Hungary	7	6	7	5	6	6	1	0	0	2	40
Belgium	0	2	1	0	0	0	0	0	0	1	4
Canada	14	18	5	5	7	6	8	3	4	10	80
Chili	1	1	0	1	0	0	0	0	0	0	3
China	8	15	5	7	6	6	6	4	1	7	65
Denmark	10	1	3	3	1	2	2	2	2	0	26
England	10	10	8	8	6	7	12	3	7	15	86
France	7	12	1	5	2	3	3	2	2	6	43
Germany	25	32	32	21	9	8	18	9	16	12	182
Guatemala	0	0	0	0	0	0	0	0	0	0	0
Holland	1	0	1	0	1	0	0	1	2	0	6
India	1	0	0	0	0	1	1	0	0	0	3
Ireland	30	28	24	25	21	26	14	13	10	9	200
Italy	10	12	8	3	4	7	5	4	0	6	59
Japan	1	1	1	3	0	0	0	0	0	0	6
Mexico	4	3	6	0	2	1	1	1	5	8	31
New Zealand	0	0	0	0	0	0	0	0	0	0	0
Norway and Sweden	13	7	4	13	1	4	13	4	4	8	71
Portugal	2	6	0	2	2	5	0	0	0	0	17
Russia	5	8	2	1	5	3	4	5	2	1	36
Sandwich Islands	1	1	0	0	1	0	0	0	0	0	3
Scotland	2	6	8	2	2	9	3	1	1	3	37
South America	1	0	0	0	0	0	0	0	0	0	1
Spain	1	1	0	0	0	0	0	0	0	1	3
Switzerland	4	6	2	3	5	1	1	3	1	1	27
Turkey	0	2	1	0	0	0	0	0	0	0	3
Wales	0	0	1	0	0	0	0	0	0	0	1
West Indies	3	0	1	0	1	0	0	1	0	0	6
Western Isles	4	6	0	2	1	3	0	1	0	1	18
Totals	167	185	123	112	84	98	92	57	57	92	1,067

Recapitulation.

	Stockton.		Napa.		Agnews.		Mendocino.		Southern California.		Total
	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	
United States	192	195	147	164	112	101	90	74	129	161	1,365
Foreign Countries	167	185	123	112	84	98	92	57	57	92	1,067
Unknown	6	8	9	5	0	6	4	9	7	4	58
Totals	365	388	279	281	196	205	186	140	193	257	2,490

TABLE E.

Showing Age at Time of Admission of Patients Admitted during the Biennial Period ending June 30, 1902.

Age.	Stockton.		Napa.		Agnews.		Mendocino.		Southern California.		Total.
	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	
Between 1 and 10 yrs..	0	0	1	1	0	0	0	0	1	0	3
Between 10 and 20 yrs..	5	5	8	4	7	5	4	2	6	7	53
Between 20 and 30 yrs..	81	82	42	61	35	34	28	29	36	57	485
Between 30 and 40 yrs..	108	105	83	80	45	62	62	32	50	63	690
Between 40 and 50 yrs..	73	89	54	50	46	39	38	27	33	52	501
Between 50 and 60 yrs..	50	51	39	40	26	23	20	13	31	36	329
Between 60 and 70 yrs..	28	34	23	24	14	19	15	14	20	20	211
Between 70 and 80 yrs..	15	16	15	11	14	10	10	10	10	14	125
Between 80 and 90 yrs..	4	6	4	6	2	5	3	3	4	3	40
Between 90 and 100 yrs.	1	0	0	0	0	0	0	0	0	0	1
Unknown	0	0	10	4	7	8	6	10	2	5	52
Totals	365	388	279	281	196	205	186	140	193	257	2,490

TABLE F.

Showing Civil Condition of Patients Admitted during the Biennial Period ending June 30, 1902.

Civil Condition.	Stockton.		Napa.		Agnews.		Mendocino.		Southern California.		Total.
	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	
Married.....	127	138	102	89	84	68	57	30	76	92	863
Single.....	156	165	125	130	83	94	95	61	79	110	1,098
Widowers.....	18	19	12	18	6	8	6	10	11	13	121
Widows.....	22	26	17	23	13	15	22	8	14	20	180
Divorced.....	14	12	8	6	6	7	2	6	5	9	75
Unknown.....	28	28	15	15	4	13	4	25	8	13	153
Totals	365	388	279	281	196	205	186	140	193	257	2,490

TABLE G.

Showing the Assigned Causes of Insanity in Cases Admitted during the Biennial Period ending June 30, 1902.

Causes.	Stockton.				Napa.				Agnews.				Mendocino.				Southern California.				Total.	
	52d Fiscal Year.		53d Fiscal Year.		52d Fiscal Year.		53d Fiscal Year.		52d Fiscal Year.		53d Fiscal Year.		52d Fiscal Year.		53d Fiscal Year.		52d Fiscal Year.		53d Fiscal Year.		Men	Women
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women				
MORAL:																						
Adverse condition (such as loss of friends, business troubles, etc.)	5	6	5	4	1	7	0	0	6	0	1	2	4	1	4	0	4	2	32	22		
Mental strain, worry, overwork (not incl'd in above)	12	16	13	19	13	3	4	7	5	10	6	7	3	2	5	9	7	8	80	90		
Religious excitement and spiritualism	2	2	4	4	1	2	5	1	3	1	3	3	0	1	4	2	3	4	23	24		
Love affairs (incl. seduction).	1	0	0	1	0	1	1	0	1	2	0	0	0	0	0	0	0	0	4	5		
PHYSICAL:																						
Intemperance, alcoholism and dissipation	24	5	27	9	9	2	35	5	13	0	14	1	9	3	12	2	20	2	173	33		
Sexual excess	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	1		
Veneral diseases	6	1	4	0	2	0	1	0	6	0	6	0	3	0	0	0	4	1	30	2		
Masturbation	14	2	8	1	11	0	6	1	13	3	12	1	6	0	4	0	11	1	94	10		
Sunstroke and overhear	5	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	18	0		
Accident or injury	14	0	18	4	8	1	3	1	6	1	6	1	4	0	2	0	6	3	74	12		
Parturition and puerperium	0	4	0	9	0	6	0	0	6	0	2	0	2	0	0	5	0	5	0	39		
Change of life	0	11	0	4	0	4	0	4	0	5	0	4	0	1	0	2	0	5	0	42		
Fevers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0		
Privation and overwork	3	2	7	0	6	0	2	0	4	2	4	2	3	1	1	0	3	0	28	5		
Epilepsy	8	1	8	4	4	4	2	0	4	1	4	1	5	5	5	0	8	4	47	21		
Diseases of skull and brain	3	2	13	3	10	1	0	0	5	2	4	3	2	3	6	0	1	0	46	15		
Old age	3	1	3	2	7	1	0	0	9	0	9	0	3	2	3	2	3	2	34	12		
Epidemic influenza	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0		
Abuse of drugs and tobacco.	5	5	0	2	0	0	0	0	6	0	6	0	4	0	7	0	6	0	43	0		
All other bodily disorders and ill health.	5	5	10	2	3	2	0	0	3	0	7	1	1	0	9	4	7	13	39	39		
HEREDITY	5	11	11	13	13	8	62	30	11	9	1	5	7	2	21	13	8	148	113			
CONGENITAL DEFECTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2		
UNASCERTAINED	125	56	112	62	87	60	59	52	38	51	20	42	53	14	50	16	68	31	692	391		
Totals	240	125	247	141	178	101	180	101	113	83	141	64	101	85	111	29	138	55	1,612	878		

TABLE H—1. *Showing Forms of Insanity in Those Admitted during the Fiscal Year ending June 30, 1901.*

Forms.	Stock-ton.		Napa.		Agnews.		Mendo-cino.		So. Cal.		Totals.	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Mania, acute delirious	0	2	0	0	0	0	0	0	0	1	0	3
Mania, acute	47	33	30	23	36	28	15	20	48	14	176	118
Mania, recurrent	24	2	4	4	6	6	4	6	0	0	38	18
Mania, chronic	6	15	33	11	9	10	3	8	12	12	63	56
Melancholia, acute	14	23	23	21	14	14	17	16	22	12	90	86
Melancholia, simple	0	0	0	0	0	0	0	0	0	0	0	0
Melancholia, chronic	3	9	2	1	4	1	0	1	8	4	17	16
Alternating (circular) insanity	0	0	0	0	0	0	0	0	0	0	0	0
Paranoia	42	15	8	12	5	4	8	3	1	0	64	34
General paralysis	29	1	5	1	6	0	6	2	14	1	60	5
Dementia, primary	0	0	2	2	3	1	1	1	0	0	6	4
Dementia, terminal, senile, and organic	25	13	28	6	15	10	13	11	31	11	112	51
Epilepsy with insanity	12	5	5	1	1	2	2	2	0	0	20	10
Imbecility with maniacal attacks	6	3	1	0	0	0	0	0	2	0	9	3
Idiocy	0	0	0	0	0	0	0	1	0	0	0	1
Not insane	3	1	0	0	0	0	0	0	0	0	3	1
Unclassified	0	0	36	19	12	7	30	13	0	0	78	39
Cases of drug habit and alcoholism	28	3	1	0	2	0	2	1	0	0	33	4
Delirium of bodily diseases	1	0	0	0	0	0	0	0	0	0	1	0
Totals	240	125	178	101	113	83	101	85	138	55	770	449

TABLE H—2. *Showing Forms of Insanity in Those Admitted during the Fiscal Year ending June 30, 1902.*

Forms.	Stockton	Napa	Agnews	Mendocino	Southern California	Totals
Mania, acute	77	34	37	10	113	271
Mania, simple	7	8	1	5	0	51
Mania, chronic	16	29	12	12	26	95
Mania, acute delirious	2	0	1	1	0	4
Melancholia, acute	36	13	34	5	49	137
Melancholia, simple	9	6	4	13	0	32
Melancholia, chronic	5	11	17	6	17	56
Melancholia, stuporous	0	1	1	4	0	6
Confusional insanity	28	1	2	0	0	31
Primary dementia	0	5	3	0	3	11
Recurrent mania	26	23	12	11	0	72
Recurrent melancholia	2	0	9	1	0	12
Circular insanity	3	2	1	1	0	7
Paranoia	46	18	11	0	1	76
Alcoholic, acute	25	11	4	4	0	44
Alcoholic, chronic	3	2	10	12	1	28
Drugs	1	5	1	8	0	15
Epileptic insanity	25	14	6	6	5	56
Hysterical insanity	0	0	0	0	0	0
Choreic insanity	0	0	1	0	0	1
General paresis	35	16	10	10	13	84
Senile dementia	20	23	15	22	23	103
Secondary dementia	9	16	11	2	6	44
Imbecility	6	10	2	4	0	22
Idiocy	0	0	0	0	0	0
Not insane	7	2	0	3	0	12
Unknown	0	1	0	0	0	1
Totals	388	281	205	140	257	1,271

NOTE: This form of classification was adopted for the general use of all the hospitals in this State, at a conference of the Hospital Superintendents and the Lunacy Commission.

TABLE I.

Showing Causes of Death of Patients Who Died during the Biennial Period ending June 30, 1902.

Cause of Death.	Stock-ton.		Napa.		Agnews.		Mendo-cino.		So. Cal.		Total.		Total
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	
Specific infectious diseases:													
Typhoid fever	0	0	0	0	1	0	0	0	0	1	1	1	2
Erysipelas	0	0	1	2	1	0	0	0	3	2	5	4	9
Septicemia and pyemia	2	1	0	0	1	0	0	2	2	0	5	3	8
Dysentery	3	3	7	0	2	0	0	0	2	0	14	3	17
Syphilis	0	0	0	0	1	0	2	0	1	0	4	0	4
Tuberculosis	58	42	39	17	14	8	10	12	3	6	124	85	209
Constitutional diseases:													
Rheumatism (or rheumatic affections)	0	0	0	0	1	0	0	0	0	0	1	0	1
Diabetes mellitus and diabetes insipidus	0	0	1	0	3	1	0	0	0	0	4	1	5
Diseases of digestive system:													
Diseases of the stomach	0	0	0	0	1	0	1	2	0	0	2	2	4
Diseases of the intestines	35	11	0	1	2	2	1	0	0	0	38	14	52
Diseases of the liver	1	0	0	0	2	0	1	1	0	1	4	2	6
Diseases of the peritoneum	0	1	0	1	4	0	0	0	0	0	4	2	6
Diseases of respiratory system:													
Diseases of the bronchi	11	4	0	0	0	0	0	0	1	1	12	5	17
Diseases of the lungs	34	3	5	6	6	0	5	0	3	0	53	9	62
Diseases of the pleura	1	2	0	0	0	0	1	0	0	1	2	3	5
Diseases of circulatory system:													
Diseases of the heart	6	6	10	3	7	9	5	0	6	1	34	19	53
Arterio-sclerosis	0	0	0	0	0	0	1	1	1	0	2	1	3
Aneurism	0	2	0	2	0	0	1	0	0	0	1	4	5
Diseases of the blood and ductless glands:													
Anemia, pernicious anemia, and leukemia	0	0	8	0	1	10	0	0	0	0	9	10	19
Diseases of the genito-urinary system	4	0	2	0	1	0	0	0	0	0	7	0	7
Diseases of the nervous system:													
Diseases of the meninges	7	2	0	0	0	0	0	0	3	0	10	2	12
Organic diseases of the brain (tumor, abscess, embolism, thrombosis, hemorrhage, and other gross lesions)	23	8	59	26	9	6	10	3	12	3	113	46	159
Functional nervous diseases (paralysis agitans, chorea, eclampsia, hysteria, neurasthenia)	0	0	0	0	0	0	0	0	0	1	0	1	1
Epilepsy	5	3	7	7	8	1	1	0	3	1	24	12	36
Mental diseases:													
Exhaustion of acute mental disease	2	7	8	5	3	3	5	0	8	7	26	22	48
Exhaustion of chronic mental disease	0	4	21	12	18	8	17	3	14	4	70	31	101
General paralysis of insane	43	3	11	0	12	3	24	2	21	3	111	11	122
The intoxications; heat stroke; obesity:													
Heat stroke	2	0	0	0	0	0	1	0	0	0	3	0	3
Debility of old age	6	12	21	12	1	12	6	6	4	1	38	43	81
Accident	1	0	0	0	4	0	0	0	0	0	5	0	5
Suicide	1	0	0	2	2	2	2	0	0	0	5	4	9
Nephritis	5	7	0	1	1	0	1	0	2	0	9	8	17
Malignant new growths or cancer	2	4	1	3	0	0	1	1	0	1	4	9	13
Bright's disease	8	1	5	1	2	0	1	0	1	0	17	2	19
Gangrene	0	0	0	0	4	1	1	0	0	0	5	1	6
Unknown (died on parole)	0	0	3	0	0	1	0	0	0	0	3	1	4
Totals	260	126	209	101	112	67	98	33	90	34	769	361	1130

TABLE J.

Showing Occupations of Those Admitted during the Biennial Period ending June 30, 1902.

Occupation.	Stockton.		Napa.		Agnews.		Mendocino.		So. Cal.		Total.
	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	June 30, 1901.	June 30, 1902.	
Professional	8	9	6	4	6	2	4	5	9	15	68
Architects, artists, authors, clergy, civil engineers, lawyers, surveyors, etc.											
Commercial	26	19	17	22	18	16	11	10	17	30	186
Bankers, merchants, accountants, clerks, salesmen, shopmen, stenographers, etc.											
Agricultural and pastoral	27	35	25	22	16	24	10	14	20	25	218
Farmers, gardeners, herdsmen, etc.											
Mechanics at outdoor vocations	28	26	18	22	9	16	14	11	20	23	187
Blacksmiths, carpenters, painters, plumbers, police, etc.											
Mechanics, etc., at sedentary vocations	26	37	13	19	14	16	18	6	9	9	167
Bookbinders, compositors, weavers, tailors, seamstresses, bakers, shoe-makers, etc.											
Exposed vocations	23	30	16	23	4	7	7	14	13	7	144
Sailors, soldiers, fishermen, etc.											
Domestic service	29	28	13	14	9	9	18	7	11	24	162
Waiters, cooks, servants, etc.											
Educa'nal and higher domestic duties.	84	95	70	73	62	50	47	21	42	60	604
Governesses, teachers, students, house-keepers, nurses, etc.											
Laborers	82	88	63	46	44	40	28	31	37	40	499
Gamblers, paupers, tramps, etc.	3	0	0	0	0	0	0	2	0	1	6
No occupation	16	13	25	24	10	18	0	6	11	17	140
Unascertained	13	8	13	12	4	7	29	13	4	6	109
Totals	365	388	279	281	196	205	186	140	193	257	2,490

[illegible]

TABLE K—CONTINUED.

Showing Number of Admissions, Discharges, Deaths, etc., from Foundation of the Hospitals to July 1, 1902.

Mendocino.										Southern California.						
Admissions.	Discharges.				Transferred.	Deaths.	Escapes.	Returned Escapes.	Admissions.	Discharges.						
	Recoveries.	Improved.	Unimproved.	Not Insane.						Recoveries.	Improved.	Unimproved.	Not Insane.			
1894	237	13	1	0	1	7	0	0	290	43	11	0	0	15	13	0
1895	182	63	4	1	2	27	4	0	243	62	9	5	1	0	0	0
1896	192	74	7	4	4	45	4	1	263	127	7	1	1	0	0	6
1897	219	76	12	9	1	66	6	4	262	138	2	2	0	0	0	0
1898	211	56	13	4	0	67	5	3	199	95	1	2	0	20	38	0
1899	178	59	13	3	9	51	5	2	186	63	0	0	0	22	45	16
1900	182	67	10	7	1	55	5	1	203	139	2	0	0	0	49	14
1901	186	44	10	7	1	64	8	2	193	84	0	1	2	21	43	22
1902	140	51	8	6	3	67	6	1	257	107	1	0	0	1	79	19
	1,727	503	78	41	19	5	449	39	2,102	878	33	11	6	64	372	84
										RECAPITULATION.						
Admissions.	Discharges.				Transferred from.	Deaths.	Escapes.	Returned Escapes.								
	Recoveries.	Improved.	Unimproved.	Not Insane.												
Stockton	6,847	1,093	286	62	303	8,074	526	10								
Napa	2,661	1,919	267	185	298	2,887	198	99								
Agnews	854	497	94	26	100	1,061	58	45								
Mendocino	1,727	503	78	19	5	449	39	14								
Southern California	2,102	878	33	6	64	372	84	71								
Totals	33,421	11,743	3,620	298	770	12,843	905	239								

Showing Whole Number Treated, and Percentages of Recoveries and Deaths, from Foundation of the Hospitals to July 1, 1902.

Southern California.	Percentage of Deaths to the Number Treated...	
	Percentage of Recoveries to Admissions....	
	Whole Number Treated..	
	Decrease	
	Increase	
	Resident at End of Year.	
Mendocino.	Percentage of Deaths to the Number Treated...	
	Percentage of Recoveries to Admissions....	
	Whole Number Treated..	
	Decrease	
	Increase	
	Resident at End of Year.	
Aguewgs.	Percentage of Deaths to the Number Treated...	
	Percentage of Recoveries to Admissions....	
	Whole Number Treated..	
	Decrease	
	Increase	
	Resident at End of Year.	
Napa.	Percentage of Deaths to the Number Treated...	
	Percentage of Recoveries to Admissions....	
	Whole Number Treated..	
	Decrease	
	Increase	
	Resident at End of Year.	
Stockton.	Percentage of Deaths to the Number Treated...	7.69
	Percentage of Recoveries to Admissions....	46.16
	Whole Number Treated..	13
	Decrease	
	Increase	6
	Resident at End of Year.	6

Showing Account of Articles Consumed and Expenditures of the Fifty-second and Fifty-third Fiscal Years.

	STOCKTON.		NAPA.		AGNEW.		MENDOCINO.		SOUTHERN CALIFORNIA.		Total
	Fifty-second Fiscal Year.	Fifty-third Fiscal Year.	Fifty-second Fiscal Year.	Fifty-third Fiscal Year.	Fifty-second Fiscal Year.	Fifty-third Fiscal Year.	Fifty-second Fiscal Year.	Fifty-third Fiscal Year.	Fifty-second Fiscal Year.	Fifty-third Fiscal Year.	
Pay and expenses of Managers.	\$1,531.00	\$1,729.95	\$2,308.85	\$2,491.05	\$1,728.42	\$1,934.83	\$2,463.20	\$2,494.45	\$2,125.95	\$2,291.00	\$21,188.70
Others' salaries.	15,219.96	15,219.96	15,296.56	15,338.91	11,312.94	11,615.96	8,920.00	9,616.45	9,459.00	9,420.00	118,801.80
Payroll of employees.	80,485.48	81,143.68	80,182.75	79,261.50	51,944.22	51,840.40	30,446.35	33,288.20	36,504.43	36,774.37	1,061,969.39
Floor.	6,808.80	6,902.00	7,154.68	7,029.87	4,574.24	4,205.52	2,819.42	3,144.69	3,008.00	2,717.89	48,584.02
Breakfast meals.	1,254.83	1,407.20	1,035.45	1,023.30	750.32	859.35	547.42	647.13	887.82	1,047.81	5,436.85
Rice.	1,671.32	1,551.35	1,361.00	1,346.00	557.28	628.87	255.44	295.44	190.26	221.00	6,931.43
Fresh meats.	18,980.23	17,084.02	17,769.21	19,329.51	10,316.49	12,617.09	6,313.75	6,978.71	8,642.33	9,173.28	127,804.62
Cured meats.	955.45	1,050.37	3,047.70	3,694.16	922.14	949.68	558.13	732.95	582.00	701.57	18,281.15
Fish (salt and fresh).	943.17	1,720.88	383.60	395.37	705.37	1,255.19	134.64	311.37	439.88	388.05	6,020.12
Eggs.	1,777.50	1,723.90	1,887.00	1,833.70	596.86	697.97	348.95	339.65	414.32	351.80	9,471.85
Butter.	2,516.87	2,064.07	2,018.78	2,141.77	927.33	1,260.11	337.39	609.23	1,058.56	1,066.00	14,130.11
Flour.	54.38	111.40	90.24	102.00	46.81	85.92	75.11	70.93			706.79
Potatoes.	2,865.40	3,648.11	2,573.68	3,131.55	2,215.13	2,421.55	882.29	1,884.72	2,169.17	2,693.94	23,772.48
Onions.	1,105.86	1,172.45	524.42	1,016.19	389.54	530.45	658.57	571.10	666.39	666.39	8,606.39
Beans.	1,412.10	1,488.23	1,613.25	1,401.32	228.00	584.48	620.88	580.90	1,178.13	1,180.87	11,880.87
Peas.	8,829.80	8,425.78	10,609.92	9,557.27	5,729.75	5,659.71	3,174.22	2,980.29	3,105.22	3,229.28	60,621.72
Wheat.	2,404.28	2,434.37	2,810.52	3,070.81	1,264.45	1,962.11	1,432.41	1,397.99	1,387.99	1,351.38	23,712.56
Barley.	2,931.60	2,675.50	2,241.51	2,103.84	880.99	942.80	642.94	655.54	942.60	1,407.02	14,027.02
Syrup.	2,390.00	2,316.59	91.00	51.70	1,313.61	1,823.36	1,645.84	1,081.43	2,273.55	1,587.78	15,976.22
Fruit (all kinds) and vegetables.	115.11	226.28	94.03	243.97	243.97	194.01	101.98	97.43	150.49	139.55	1,369.55
Salt.	96.49	140.03	182.44	223.20	73.70	77.74	190.41	190.24	34.43	100.49	1,135.73
Vegetables and pickles.	2,191.55	2,074.44	1,885.54	1,963.88	2,539.32	2,585.88	1,342.29	1,431.05	1,800.73	2,239.05	20,056.33
Ice and ammonia.	741.57	907.72	71.82	135.24			167.17	274.18			1,056.80
Tobacco and pipes.	2,105.29	2,115.96	1,421.70	1,334.83	839.62	1,052.83	1,054.20	742.98	812.09	1,240.71	12,460.71
Yallow.	598.13	505.43					139.26	235.57			1,468.39
Crockery.	521.88	586.10	237.56	372.22	302.40	278.68	205.50	192.57	288.79	340.10	3,325.80
Linum.	42.74	128.45	33.71	44.75	492.23	484.05	160.81	159.69	284.33	273.74	2,118.44
Furniture and fixtures.	166.88	112.84	60.90	112.75	73.70	62.20	46.93	34.16	102.06	117.63	1,146.07
Brooms and brushes.	423.72	337.09	605.90	580.89	303.51	304.75	242.51	259.18	239.77	310.03	3,610.05
Saddles.	676.51	685.48	1,395.08	1,097.98	1,097.98	1,247.22	539.72	478.06	1,020.32	717.73	9,748.14
Soda ash, caustic and sal soda, etc.	450.78	1,182.17	314.95	388.17							1,447.93
Lithers.	221.85	525.00	262.10	252.23				20.00			1,092.56
Lumber.	382.51	940.00	696.19	1,167.88	655.76	685.29	447.33	670.62	1,392.68	1,176.88	8,285.24
H.-saw and machinery.	1,035.43	1,920.63	1,286.00	1,810.47	1,553.59			916.83	1,375.27	1,540.77	12,691.42
Tools.	729.79	946.10	747.88	410.82	447.55	1,417.51	948.21	430.26	640.33	754.77	8,303.54
Other than saws, and baskets.	25.60	21.70			20.00			24.00			115.30
Stoves and chimneys.	256.11	270.10									638.21
Leather and binding.		36.08				79.95	37.25				143.25
Leather and binding.	1,080.38	1,569.49	2,233.09	3,421.46	1,840.23	2,193.60	320.31	554.42	1,567.41	1,211.33	19,982.72
Leather and binding.	139.82	186.22	37.05	108.95	165.25	167.08	306.05	469.88	262.08	273.74	2,118.44
Leather and binding.	215.35	341.99		179.26	169.14	64.32	21.17	97.55			1,359.28
Leather and binding.	3,599.76	3,837.70	7,490.72	6,828.72	2,603.94	2,120.14	1,827.99	1,773.88	2,579.79	2,144.66	34,567.67
Leather and binding.	5,359.39	4,028.67	454.81	404.31	2,423.11	2,291.43	1,651.96	1,448.34	1,978.78	2,265.88	22,655.18
Leather and binding.	599.20	334.50	1,222.05	1,283.55	1,095.70	1,532.90	900.73	876.81	1,440.29	1,440.29	10,940.87
Leather and binding.	61.08	292.50									219.89
Leather and binding.	1,078.70	1,696.07	167.10	171.76							3,113.63
Leather and binding.	1,194.69	1,435.20	744.10	943.60	652.10		1,005.36	358.40	785.25	771.31	7,901.64
Leather and binding.	132.74	4.50	225.40	301.40		218.25	385.10	385.10	329.62	329.62	3,513.38
Leather and binding.	878.11	36.72	36.74	34.40	1,515.80	1,380.62	1,025.65	435.26	738.26	1,120.71	8,050.38
Leather and binding.	47.90	10.50	9.00								67.40
Leather and binding.	146.17	313.97	121.55	72.50							775.06
Leather and binding.	221.78	220.13	169.84	269.69	338.20	350.18	148.88	155.64	298.67	315.33	2,435.35
Leather and binding.	9,842.95	10,000.30	21,187.71	14,188.55	16,696.19	12,272.54	6,886.17	10,079.20	6,011.66	4,297.56	107,819.99
Leather and binding.	94.95	100.10	207.50	256.20	199.02	292.68	1,382.70	599.44	560.67	447.15	3,541.17
Leather and binding.	1,885.41	1,679.48	1,464.94	1,867.94	1,118.84	1,171.35	599.44	1,440.29	1,273.42	1,061.33	15,670.33
Leather and binding.	638.20	911.34	239.24	194.96	126.00	98.76	69.68	342.95	145.60	178.57	2,983.63
Leather and binding.	184.56	173.23	282.72	275.47	45.16	60.13	60.13	300.59	85.27	67.40	2,164.38
Leather and binding.	278.94	263.50	298.36	217.64	148.30	102.72	287.05	237.24	296.74	235.32	2,415.80
Leather and binding.	208.00	316.00	240.32	239.15	335.00	300.00	191.56	193.96	36.00		2,533.79
Leather and binding.	170.80	117.00			30.20	12.00					395.95
Leather and binding.			135.49	642.85	113.32	282.70	605.86	560.57	108.34	271.57	2,729.70
Leather and binding.	103.45	80.02	34.25	153.02	1,087.03	1,615.02	304.17	864.00	883.02		3,363.85
Leather and binding.	51.55	111.39	691.03	803.98	515.17	245.76	805.07	350.18	3,945.01	3,902.35	12,319.00
Leather and binding.							3,600.00	2,371.00			6,471.00
Leather and binding.							1,144.10	841.00			1,450.96
Leather and binding.							68.00				1,106.01
Leather and binding.					100.35	57.05					1,474.85
Leather and binding.	93.00	84.00									10,795.01
Leather and binding.	700.93	714.02							4,268.94	5,005.47	980.00
Leather and binding.	748.65	771.95							360.40	360.00	
Leather and binding.	120.00	120.00									
Totals.	\$195,103.43	\$195,606.94	\$107,153.81	\$104,404.26	\$137,579.88	\$139,318.05	\$94,174.42	\$99,216.99	\$110,183.39	\$113,313.04	\$1,476,089.30

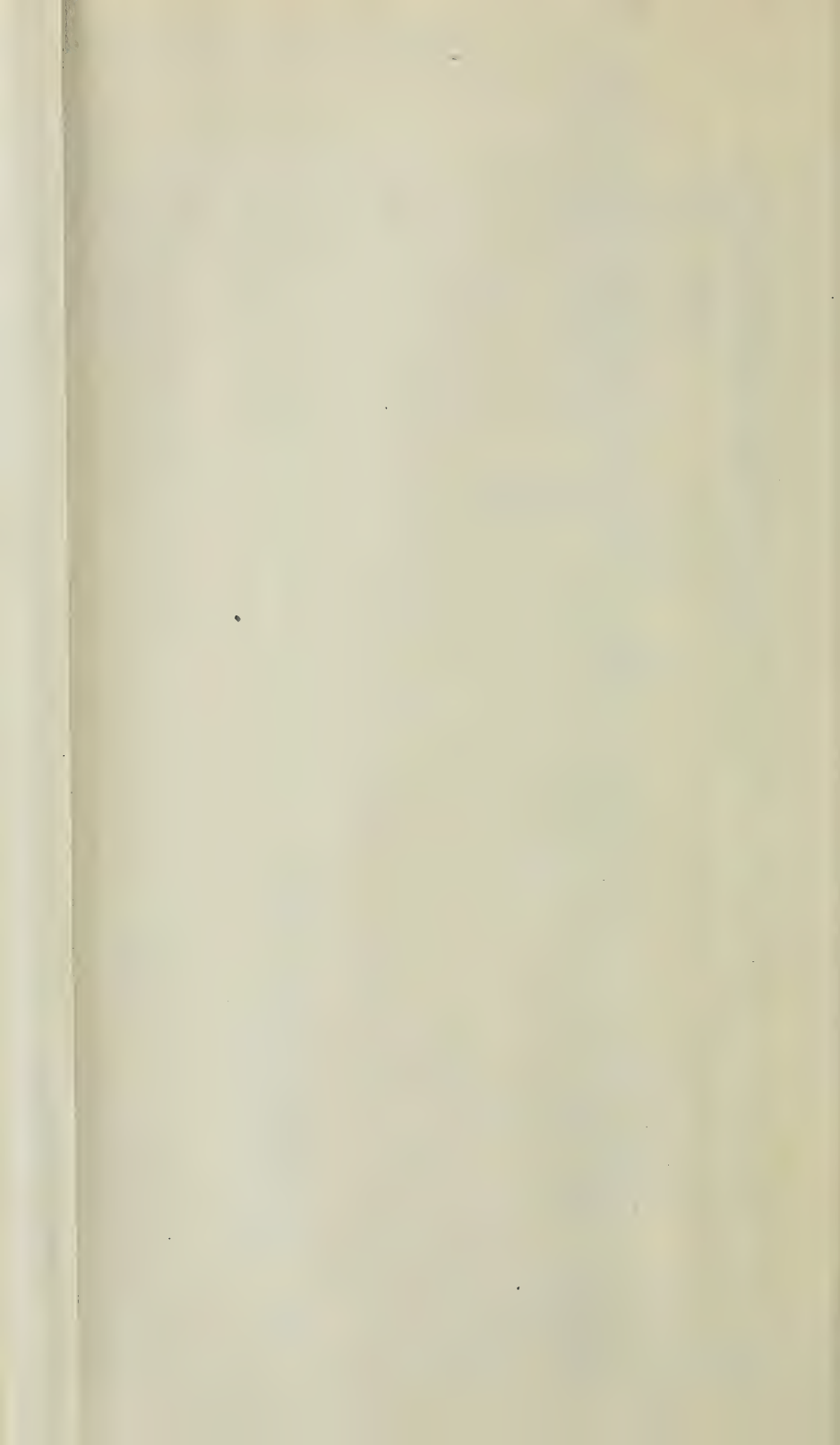


TABLE No. 2.

Showing Cost of the Different Departments for the Biennial Period ending June 30, 1902.

	STOCKTON.		NAPA.		AGNEWS.		MENDOCINO.		SOUTHERN CALIFORNIA.		Total
	Fifty-second Fiscal Year.	Fifty-third Fiscal Year.	Fifty-second Fiscal Year.	Fifty-third Fiscal Year.	Fifty-second Fiscal Year.	Fifty-third Fiscal Year.	Fifty-second Fiscal Year.	Fifty-third Fiscal Year.	Fifty-second Fiscal Year.	Fifty-third Fiscal Year.	
Male Department.....	\$10,890 37	\$9,793 59	\$4,082 69	\$4,441 48	\$5,816 46	\$6,823 22	\$5,262 85	\$4,247 29	\$4,606 47	\$6,188 79	\$65,985 21
Female Department.....	2,721 84	2,782 36	2,191 37	2,111 29	1,833 98	1,507 77	2,189 19	1,207 74	1,145 20	1,110 79	18,891 53
Kitchen and dining-rooms.....	52,583 44	53,089 90	48,405 45	41,305 14	30,687 71	35,937 08	22,683 63	23,836 05	23,488 78	27,812 77	374,729 86
Laundry.....	1,021 39	1,072 37	871 76	776 45	622 60	877 65	594 85	570 30	790 11	1,029 66	8,018 14
Bakery.....	6,572 16	6,884 22	6,739 63	6,685 15	5,347 31	5,015 06	2,960 23	3,479 28	5,444 53	5,240 83	54,353 41
Farm, garden, dairy, and stable.....	1,618 94	2,681 71	2,373 69	4,363 69	2,555 98	2,648 65	2,554 98	2,175 08	3,246 57	3,999 77	29,088 74
Shoe-room and tailor shop.....	1,291 86	1,372 67	6,545 11	5,822 78	2,246 83	1,791 40	1,453 24	1,343 11	2,377 59	1,860 49	25,383 12
Engine-room and fuel.....	3,309 59	4,427 02	16,174 81	12,387 31	12,639 02	6,794 84	7,453 22	8,672 69	1,212 63	885 97	80,957 10
Building and repairs.....	5,706 92	8,087 23	1,185 79	1,312 37	3,150 45	3,630 11	322 12	2,054 93	2,165 90	2,475 48	17,682 73
Shops.....	2,659 04	2,771 70	1,681 49	2,081 10	1,262 03	1,311 59	712 72	1,645 26	1,441 47	1,283 43	16,449 88
Office.....	581 14	662 93	1,031 95	1,148 08	883 92	818 59	728 58	801 64	3,691 83	2,318 74	12,327 80
Managers' expenses.....	1,631 60	1,729 85	2,398 85	2,591 05	1,728 42	1,934 81	2,463 20	2,494 45	2,085 95	2,221 01	21,158 80
Payroll.....	90,705 44	90,363 64	94,179 32	92,660 41	63,281 18	63,460 36	39,268 35	40,850 70	45,888 43	46,197 19	677,936 01
Returned escapes.....	170 80	117 90	.....	.....	9 30	30 20	12 00	.....	.....	.....	540 20
Superintendent.....	385 16	385 67	.....	282 88	.....	.....	.....	.....	.....	.....	1,421 31
Phys. Assistant Physician.....	409 62	446 32	54 64	21 00	.....	.....	.....	.....	.....	.....	854 48
Second, Third, and Fourth Assistant Physicians.....	848 40	889 00	293 75	469 80	.....	.....	.....	.....	.....	.....	2,500 95
Miscellaneous.....	589 79	642 33	852 09	825 51	1,476 92	1,648 08	1,593 61	1,355 59	1,711 63	1,853 07	12,498 32
Swing painting.....	760 83	714 02	.....	.....	.....	.....	.....	.....	.....	.....	1,474 95
Water and hydrants.....	120 00	120 00	.....	.....	.....	.....	.....	.....	.....	.....	540 00
Light and electric power, etc.....	710 40	691 20	3,202 66	2,002 05	2,585 79	3,468 51	1,382 70	1,507 85	8,382 66	8,025 23	31,969 15
Furnishings.....	.....	.....	.....	.....	.....	.....	.....	.....	385 39	688 00	1,073 39
Totals.....	\$195,103 43	\$195,006 04	\$107,153 81	\$194,440 25	\$157,579 88	\$139,318 05	\$94,174 42	\$99,216 99	\$110,183 39	\$113,313 04	\$1,476,089 30

TABLE No. 3.

Showing Amount of Supplies Purchased and Distributed, and Balances on Hand at Beginning and End of Each Fiscal Year.

FISCAL YEAR ENDING JUNE 30, 1901.

	STOCKTON.	NAPA.	AGNEWS.	MENDOCINO.	SOUTHERN CALIFORNIA.
Amount on hand June 30, 1900.....	\$2,321 07	\$1,483 08	\$3,515 36	\$5,976 60	\$2,180 30
Amount purchased during fiscal year.....	95,152 58	102,118 20	73,753 15	53,131 10	61,145 45
Amount distributed during fiscal year.....	95,497 27	102,972 29	74,715 70	54,906 12	62,399 01
Amount on hand June 30, 1901.....	1,976 38	627 05	3,652 81	4,201 58	1,116 74
Totals.....	\$97,473 65	\$97,473 65	\$103,569 34	\$103,569 34	\$77,368 51

FISCAL YEAR ENDING JUNE 30, 1902.

	STOCKTON.	NAPA.	AGNEWS.	MENDOCINO.	SOUTHERN CALIFORNIA.
Amount on hand June 30, 1901.....	\$1,976 38	\$627 05	\$3,652 81	\$4,201 58	\$1,116 74
Amount purchased during fiscal year.....	95,265 98	102,500 44	74,113 05	57,703 65	65,213 95
Amount distributed during fiscal year.....	95,227 30	101,863 34	73,322 86	58,391 26	64,734 86
Amount on hand June 30, 1902.....	2,015 26	2,342 15	3,443 00	3,543 94	1,565 83
Totals.....	\$97,242 56	\$97,242 56	\$104,127 49	\$104,145 49	\$77,165 86

TABLE No. 4.
Showing Averages for the Biennial Period ending June 30, 1902.
 FISCAL YEAR ENDING JUNE 30, 1901.

	STOCKTON				NAPA				AGNEW				MENDOCINO				SOUTHERN CALIFORNIA			
	Average No. of Patients Daily	Average Daily Expense	Average Daily Per Capita	Average Monthly Per Capita	Average No. of Patients Daily	Average Daily Expense	Average Daily Per Capita	Average Monthly Per Capita	Average No. of Patients Daily	Average Daily Expense	Average Daily Per Capita	Average Monthly Per Capita	Average No. of Patients Daily	Average Daily Expense	Average Daily Per Capita	Average Monthly Per Capita	Average No. of Patients Daily	Average Daily Expense	Average Daily Per Capita	Average Monthly Per Capita
1901 July	1,593	\$524.63	\$0.32.0	\$10.19	1,468	\$507.48	\$0.33.0	\$10.43	967	\$370.17	\$0.32.00	\$11.51	557	\$288.75	\$0.41.2	\$12.77	630.08	\$286.84	\$0.42.33	\$12.12
August	1,390	514.52	32.1	9.90	1,311	501.64	31.7	10.25	985	370.64	31.19	11.53	561	279.47	40.3	12.19	631.00	305.24	48.24	14.97
September	1,091	508.20	34.9	10.45	1,511	526.33	34.8	10.45	979	366.10	37.29	11.21	594	245.33	43.4	12.02	634.00	286.28	46.74	13.84
October	1,660.0	527.65	32.8	10.17	1,512	533.65	32.3	10.94	984	401.22	40.8	12.64	568	255.21	41.4	12.83	633.10	301.10	47.07	14.59
November	1,967	557.61	33.5	10.94	1,475	566.20	37.3	11.29	979	380.54	39.98	11.81	599	217.53	42.1	12.63	644.13	306.68	52.24	15.57
December	1,643	565.30	35.3	10.91	1,569	561.0	32.2	11.35	977	475.38	38.11	11.89	594	275.90	46.2	14.12	637.19	301.26	56.28	15.58
1902 January	1,011.5	510.34	32.2	9.99	1,317	575.25	38	11.73	980	360.82	40.00	12.40	600	280.05	47.1	14.00	602.15	299.16	45.10	13.98
February	1,615	570.45	35.7	9.00	1,512	557.06	39.5	11.60	990	407.33	41.14	11.52	611	314.56	51.4	14.39	602.10	302.70	56.17	14.05
March	1,016.3	510.75	31.6	9.90	1,524	539.91	34.8	10.80	965	367.54	37.92	11.47	621	255.83	37.9	11.75	675.28	296.11	42.95	13.14
April	1,618	534.50	33.0	9.89	1,550	550.96	35.2	10.58	968	381.32	38.01	11.52	626	268.8	42.7	12.81	686.19	312.30	45.89	13.76
May	1,617	610.80	32.0	9.91	1,532	517.74	33.2	10.37	1,002	354.44	35.77	10.96	629	278.08	44.1	13.07	676.20	285.86	42.24	13.09
June	1,018.7	520.52	32.8	9.83	1,520	511.36	33.6	10.00	1,000	359.08	35.69	10.70	624	264.87	42.4	12.72	673.29	282.95	41.91	12.98
Yearly Averages	1,088.7	\$534.92	\$0.32.2	\$10.10	1,510	\$540.55	\$35.0	\$10.82	980	\$370.33	\$0.38.11	\$11.59	595	\$258.47	\$0.43.1	\$13.17	654.00	\$300.56	\$0.46.22	\$13.96

FISCAL YEAR ENDING JUNE 30, 1902.																				
1901 July	1,014	\$515.87	\$0.31.9	\$9.89	1,518	\$510.65	\$0.34	\$10.56	1,016	\$359.55	\$0.35.40	\$10.97	614.55	\$289.60	\$0.40.9	\$11.60	604.20	\$303.30	\$0.40.00	\$14.28
August	1,023	510.32	32	9.97	1,521	521.30	34.6	10.21	1,014	358.62	34.24	10.90	615.17	282.08	37.7	12.19	686.02	305.63	45.38	14.17
September	1,017	535.87	34.1	9.98	1,525	537.50	35.2	10.57	1,020	369.72	36.24	10.87	616.21	283.01	42.6	12.80	687.36	317.68	46.18	13.85
October	1,021	513.30	33.5	10.31	1,534	526.82	34.9	10.80	1,011	388.05	38.37	11.89	610.23	270.35	43.6	13.5	695.20	305.58	44.05	13.65
November	1,024	501.54	34.6	10.37	1,535	544.90	35.5	10.65	1,007	394.02	38.78	11.67	617.30	275.20	44	13.31	717	308.92	41.81	12.95
December	1,023	518.42	36.8	10.48	1,535	531.09	34.6	10.72	1,013	388.77	39.10	12.14	621.88	279.41	44.8	13.89	723.02	300.45	41.91	12.87
1902 January	1,030	501.11	32.6	10.12	1,537	501.46	35.5	10.97	1,008	377.32	37.43	11.60	624.35	278.22	44.5	14.81	716.20	300.33	43.91	12.34
February	1,025	501.81	32.8	10.02	1,574	494.80	35.2	10.42	1,000	400.30	40.03	11.21	624.64	266.78	47.5	11.80	751.07	300.81	46.92	13.13
March	1,029	504.12	32.2	9.97	1,566	511.26	35.8	10.48	1,011	412.91	40.88	11.13	604.4	268.43	41.5	12.89	739.28	286.48	38.63	11.07
April	1,016	530.24	32.2	9.67	1,531	530.51	34.6	10.40	1,008	398.30	39.42	11.85	625.75	266.42	45.4	13.54	738.10	305.92	43.43	11.43
May	1,022	510.96	31.3	9.70	1,504	527.30	34.4	10.65	1,012	472.90	38.13	11.42	628.00	261.43	41.6	12.80	742.11	302.24	40.71	12.02
June	1,015	529.95	32.2	9.66	1,529	524.90	34.4	10.41	1,021	391.82	38.37	11.50	610.23	260.11	42	12.66	751.08	338.71	45.08	13.52
Yearly Averages	1,029	\$535.10	\$0.33	\$10.00	1,527	\$533.07	\$0.34.9	\$10.63	1,014	\$381.85	\$0.37.08	\$11.46	622.20	\$271.92	\$0.43.5	\$13.27	714	\$310.53	\$0.43.4	\$13.15

TABLE No. 5.

*Showing Articles Made in the Sewing Rooms during the Biennial Period
ending June 30, 1902.*

Articles.	Stockton.	Napa.	Agnews.	Mendocino.	Southern California.
Anklets (pairs)	38				
Aprons (all kinds)	2,088	2,731	960	943	1,365
Armlets		127			
Awnings	21				
Bags	57	30	4	11	69
Bandages					108
Bedticks, mattresses, can- vases, etc.	966		1,697	220	329
Bibs		26	112		
Blankets, canvas	37		14	2	
Capes		118			
Caps, night					139
Chemises	736	1,052	392	384	255
Coats		550		42	4
Comforters				4	5
Commode covers				8	
Covers				13	25
Curtains			348	160	209
Drawers (pairs)	596	2,091	276	1,187	331
Dresses	889	886	375	588	503
Jackets, canvas		40	78	43	
Jackets, soft		95		5	
Jacket strings		264	1,220	317	
Jumpers		52			
Muffs, canvas	78			2	14
Muffs, leather	65				
Mittens	10				27
Napkins	637	177	499	328	240
Napkins, bed	36	54			301
Neckties				58	36
Nightgowns	717	319	429	369	893
Overalls		225			3
Overshirts		900			163
Pants		735			
Pillow slips (all kinds)	3,375	3,323	4,411	1,588	764
Scarfs	57				56
Shams, sheet	84	154		78	
Sheets	3,602	4,631	3,297	2,041	3,665
Shirts, canvas	22				56
Shrouds	222	325	162	38	
Skirts, flannel			4		413
Skirts	610	1,525	643	401	613
Sleeves (all kinds)		122			125
Straps, body	268				
Straps, foot	98	120			
Straps, ankle	51				
Suits, painter's		18			
Sunbonnets	100	532	143	102	99
Suspenders		250	144	96	158
Towels, bath	2,952	657	324	1,412	1,829
Towels, dish	36	84		1,230	404
Towels, roller	1,385	1,054	3,865	491	483
Towels, surgical					256
Tablecloths	435	224	72	66	100
Vests, canton flannel		1,124			
Vests, men's		250			
Union suits	44				18
Undershirts		913		1,126	
Waists, canvas					29
Waists, dress		49	184	74	62
Window shades			458	178	

TABLE No.

Showing Quantity and Value of Products of Farm, Garden, and Dairy, for Biennial Period ending June 30, 1902.

SFOCKTOS.				NAPA.				AUGUEWS.				MEXCOCINO.				SOUTHERN CALIFORNIA.				
Fifty-second Fiscal Year.		Fifty-third Fiscal Year.		Fifty-second Fiscal Year.		Fifty-third Fiscal Year.		Fifty-second Fiscal Year.		Fifty-third Fiscal Year.		Fifty-second Fiscal Year.		Fifty-third Fiscal Year.		Fifty-second Fiscal Year.		Fifty-third Fiscal Year.		
Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
				42 lbs.	\$7 45															
				12,068 lbs.	129 65	40,455 lbs.	\$404 35	3,049 lbs.	\$72 78	1,845 lbs.	\$24 68	1,040 lbs.	\$10 40	570 lbs.	\$8 70	1,200 lbs.	\$12 00	6,500 lbs.	\$68 00	
				640 lbs.	7 45	2,123 lbs.	31 98	20 lbs.	30							620 lbs.	20 80	1,200 lbs.	15 50	
700 lbs.	\$7 00	1,280 lbs.	\$25 60	2,933 lbs.	69 06	7,020 lbs.	140 40	4,188 lbs.	167 87	5,750 lbs.	123 92	546 lbs.	26 40	635 lbs.	19 00	3,305 lbs.	50 90	7,475 lbs.	112 10	
				463 lbs.	9 26	385 lbs.	7 90													
13,300 lbs.	103 47	20,270 lbs.	278 46	12,575 lbs.	66 47	19,200 lbs.	96 00	12,495 lbs.	91 28	9,470 lbs.	56 88	2,727 lbs.	81 81	1,737 lbs.	67 67	6,310 lbs.	48 00	3,925 lbs.	29 50	
				33,587 lbs.	167 93			165,000 lbs.	232 00	180,000 lbs.	329 00	5,535 lbs.	49 63	3,469 lbs.	34 09	60,000 lbs.	150 00			
				2,910 lbs.	27 25															
				470 lbs.	16 40	2,140 lbs.	74 90	1,533 lbs.	96 40	1,659 lbs.	112 12	27 lbs.	1 35	74 lbs.	2 44	1,240 lbs.	24 80	625 lbs.	12 50	
236 lbs.	236 08			4,555 lbs.	20 14	1,280 lbs.	78 16	73,559 lbs.	205 85	18,087 lbs.	120 10	29,710 lbs.	297 10	26,138 lbs.	433 40	16,031 lbs.	120 25	44,410 lbs.	360 65	
				62,780 lbs.	227 60	73,559 lbs.	738 16	29,901 lbs.	205 85	18,087 lbs.	120 10	29,710 lbs.	297 10	26,138 lbs.	433 40	16,031 lbs.	120 25	44,410 lbs.	360 65	
27,150 lbs.	203 00	17,870 lbs.	229 28	4,555 lbs.	20 14	1,280 lbs.	78 16	27,768 lbs.	233 46	823 lbs.	125 88	51,418 lbs.	288 34	19,445 lbs.	118 81	21,430 lbs.	214 20	37,457 lbs.	374 37	
91 doz.	13 65	45 doz.	6 45													91 doz.	13 65	45 doz.	6 45	
469 doz.	46 00	1,853 doz.	185 00	3,046 lbs.	91 35	1,604 lbs.	49 62									41 doz.	2,208 lbs.	51 doz.	1,150 lbs.	
11,084 lbs.	71 95	6,280 lbs.	75 80	853 doz.	44 12	1,436 doz.	178 25									1,400 lbs.	7 60	1,700 lbs.	6 50	
				1,651 lbs.	25 30	2,530 lbs.	12 65	1,163 doz.	92 55	1,221 doz.	63 69	825 doz.	77 24	892 doz.	54 80	285 lbs.	2 00	1,320 lbs.	32 50	
450 lbs.	6 75			7,623 lbs.	609 84	12,029 lbs.	481 16	1,208 lbs.	23 11	66 doz.	34 16	555 lbs.	7 29	14 lbs.	1 06	285 tons	25 00	1,700 lbs.	32 50	
91	45 50	564	282 50	4,039 lbs.	70 40	720 lbs.	20 40										1,325 tons	300 tons	1,500 tons	
				68 doz.	273 28	67 doz.	161 35	841	308 47	625	245 46					57	18 50			
				189 lbs.	20,720 lbs.	101 35														
18	9 00	47	23 50	38,000 lbs.	28 00			5,081 doz.	1,196 50	5,000 doz.	1,312 13	74 doz.	9 25	559 doz.	83 29	806 lbs.	8 05	455 doz.	87 05	
392 doz.	73 21	729 doz.	136 40	5,281 doz.	1,194 32	4,761 doz.	970 10											625 lbs.	6 25	
4,490 lbs.	56 76	5,582 lbs.	115 65			1,466 lbs.	21 99													
						16,680 lbs.	83 30													
				6	6 00	11	12 75													
				9,000 lbs.	96 00	4,275 lbs.	45 75													
				234 tons	1,777 51	302 tons	2,117 76	10 tons	70 00	67 tons	526 00	48 tons	384 00	130 tons	960 00	14,787 lbs.	225 00	5,760 lbs.	57 60	
634 tons	2,816 00	741 tons	3,108 00					84 tons	512 00	57 tons	311 23					118 tons	1,180 00	327 tons	3,270 00	
				18 lbs.	2 70	85 lbs.	15 75	97 tons	402 00	57 tons	311 23	100 lbs.	2 50	40 lbs.	80	500 lbs.	5 00	360 lbs.	9 00	
												1,439 lbs.	26 25	120 lbs.	1 20					
												245 lbs.	1 58							
1,467 doz.	160 00	771 doz.	115 65	8,974 lbs.	89 74	13,023 lbs.	130 23	388 doz.	40 83	377 doz.	39 62	4,272 lbs.	124 88	2,370 lbs.	26 80	66 48	2,202 lbs.	22 00	3,125 lbs.	31 25
						122 lbs.	1 22					650 lbs.	6 50	2,370 lbs.	26 80					
127 doz.	65 50	505 doz.	378 75	45 45	5 50	267	28 70	61 doz.	30 80	274 doz.	137 00	120 doz.	48 50	51 doz.	2 00	13,846 lbs.	901 71	30,040 lbs.	123 30	
35,210 gals.	5,261 70	35,638 gals.	5,255 70	44,067 gals.	5,512 84	47,046 gals.	5,880 75	50,425 gals.	6,303 12	48,665 gals.	6,083 11	11 doz.	8 50	1,206 gals.	150 75	25,630 lbs.	262 00	25,630 lbs.	262 00	
						2 40	2 40									16,390 lbs.	42 00	30,040 lbs.	140 00	
						2 doz.	20 00									25,137 gals.	443 30	30,095 gals.	562 50	
						205 20	205 20													
				1,840 lbs.	18 40	620 lbs.	6 20													
30,555 lbs.	330 07	1,735 lbs.	43 38	51,383 lbs.	515 83	20,520 lbs.	205 20	15,859 lbs.	173 38	14,303 lbs.	214 50	10,772 lbs.	124 72	9,947 lbs.	105 17	13,707 lbs.	205 69	17,650 lbs.	255 75	
		155 lbs.	3 70			6,650 lbs.	69 50	18,719 lbs.	122 67	157 doz.	39 11	5,865 lbs.	48 29	7,935 lbs.	69 27	21,509 lbs.	1,659 15	60,912 lbs.	2,344 35	
										9,755 lbs.	63 70					7,500 lbs.	75 50	300 lbs.	3 00	
																70 lbs.	70	345 lbs.	8 50	
500 lbs.	5 00	210 lbs.	2 70													3,660 lbs.	52 50	4,500 lbs.	62 50	
17,825 lbs.	177 20	4,570 lbs.	55 90	4,570 lbs.	55 90	5,041 lbs.	56 53	72 lbs.	1 38	580 lbs.	22 00	1,711 lbs.	55 55	1,207 lbs.	2 45	540 lbs.	6 50	16 80		
4,880 lbs.	56 47	4,340 lbs.	60 40	45,791 lbs.	251 64	16,170 lbs.	196 98			40,891 lbs.	394 68	40,891 lbs.	394 68	120 11	1 35	7,335 lbs.	83 95	10,000 lbs.	134 50	
1,540 lbs.	15 40	4,380 lbs.	46 60													13,575 lbs.	200 65	20,000 lbs.	169 00	
																65,400 lbs.	192 00			
10,100 lbs.	70 50	32,750 lbs.	315 50	20,375 lbs.	101 85	65 lbs.	67 50	68,812 lbs.	573 96	25,892 lbs.	318 93	1,203 lbs.	14 48					320 lbs.	4 20	
				118 50	118 50	6,475 lbs.	67 75	1,032 88				360 lbs.	5 27			63 lbs.	65	12,978 lbs.	129 75	
				22,451 lbs.	673 53	29,611 lbs.	306 96	356 lbs.	4 78	532 lbs.	5 30									
				6,990 lbs.	74 82	9,612 lbs.	96 42													
				15,875 lbs.	1,050 74	21,081 lbs.	1,768 48	16,974 lbs.	1,374 82	15,770 lbs.	1,631 40	10,759 lbs.	834 55	8,375 lbs.	670 00	13,184 lbs.	1,054 70	8,910 lbs.	712 80	
				10,359 lbs.	103 50	4,101 lbs.	41 01	130 lbs.	1 36	168 lbs.	2 46					1,120 lbs.	11 20	2,370 lbs.	35 60	
								475 lbs.	4 75	451 lbs.	4 51	4 82	2,393 lbs.	51 51	235 lbs.	8 35	175 lbs.	1 75	1,800 lbs.	15 00
280 lbs.	3 20	47 lbs.	94	3,661 lbs.	36 61	370 lbs.	34 20			39 doz.						40 lbs.	1 20			
				835 lbs.	41 25															
								924 lbs.	23 05	305 lbs.	4 55									
								2,125 lbs.	23 60	36,260 lbs.	37 35	2,000 lbs.	20 00	1,205 lbs.	12 05	1,600 lbs.	90 00	2,880 lbs.	175 40	
27,896 lbs.	140 84	41,065 lbs.	337 63	21,147 lbs.	105 73	18,710 lbs.	55 83	1,965	21 65	207	68	11,070 lbs.	98 48	6,140 lbs.	35 39	3,680 lbs.	30 80	12,210 lbs.	125 75	
55,956 lbs.	371 18	78,334 lbs.	862 70	115 50	696 19	475 67	37,811 lbs.	670 69	37,811 lbs.	670 69	30,890 lbs.	318 93	664 lbs.	47 12	4,710 lbs.	74 00	5,322 lbs.	66 80	44,000 lbs.	260 00
25,820 lbs.	159 65	11,550 lbs.	39 80					24,963 lbs.	6,847 88	6,847 88	225 76	16,865 lbs.	204 65	245 65	11 12	34,963 lbs.	255 85	14,900 lbs.	80 00	
						38 lbs.	5 04			6,815 lbs.	38 01	7,287 lbs.	47 15	6,212 lbs.	34 40	16,482 lbs.	164 80	18,800 lbs.	126 75	
				420 lbs.	253 80	4,208 lbs.	256 48	1,144 lbs.	97 82	2,047 lbs.	184 23					252 lbs.	20 16	325 lbs.	39 70	
448 50		318 50		571 lbs.	51 39	24 lbs.	24 00					28 cords	112 00	85 cords	348 87					
	</																			

REPORT

OF THE

SPECIAL HEALTH COMMISSIONERS

APPOINTED BY THE GOVERNOR TO CONFER WITH
THE FEDERAL AUTHORITIES AT WASHINGTON
RESPECTING THE ALLEGED EXISTENCE OF
BUBONIC PLAGUE IN CALIFORNIA.

ALSO

REPORT OF STATE BOARD OF HEALTH.



SACRAMENTO:

A. J. JOHNSTON, : : : : : SUPERINTENDENT STATE PRINTING.

1901.

REPORT OF THE SPECIAL HEALTH COMMISSIONERS

Appointed by the Governor to Confer with the Federal Authorities at Washington Respecting the Alleged Existence of Bubonic Plague in California.

SAN FRANCISCO, CAL., September 16, 1901.

HON. HENRY T. GAGE, *Governor State of California*:

SIR: The commissioners appointed by you on the 1st day of March, 1901, to visit Washington in order to confer with the Federal authorities in relation to the alleged prevalence of bubonic plague in the Chinese quarter of San Francisco, and to the more or less positive declarations of intention to place the State of California under quarantine, and who were subsequently invited by you to assist in an advisory capacity in carrying out the agreement reached to cleanse Chinatown, have the honor to report as follows:

In the course of a conference held in your office on the 27th of February, 1901, participated in by the members of your commission, it was developed that a misunderstanding had arisen concerning the attitude of the Executive of the State of California toward the Federal health authorities. Misrepresentations had been made by irresponsible papers, which created the impression in Washington that there was a disposition on your part to obstruct the operations of the United States Marine Hospital Service, and these were being seized upon by peoples having rival interests and were employed as arguments to force the abandonment of San Francisco as a military headquarters, and as the chief base of the Philippine transportation service. Statements were made that the existence of bubonic plague would make the imposition of a quarantine necessary, and it was openly asserted that such action would be followed by the removal of the transport service and military headquarters from an alleged plague-infected city.

At the conference referred to you laid before your commissioners all the correspondence which had passed between yourself and the Federal health authorities on the subject of the alleged existence of the plague in San Francisco. It plainly disclosed the fact that there was no ground for the assertion freely made that you were placing obstacles in the way of

taking precautions; on the contrary, we found in it earnest professions of a desire to coöperate with the Federal health authorities in order to set at rest the alarming and injurious rumors which were being circulated regarding the prevalence of the disease. In a telegram of February 25, 1901, you said to the Hon. Lyman J. Gage, Secretary of the Treasury, in reply to a dispatch from him, regretting your inability to visit Washington and confer with the department regarding the matter:

I therefore respectfully request the United States authorities to take charge of the matter within this State and deal with the situation from the standpoint of the report of its commissioners, but without charge or cost to this State, at the same time assuring you of my hearty coöperation. (Appendix, page 30.)

We found that your attitude respecting the assumption of the cost of the preventive measures was prompted by information, conveyed in a semi-official manner, that there was a considerable sum of money at the disposal of the health authorities of the United States, to be used in emergencies such as that which confronted the State. But we noted that the Honorable Secretary of the Treasury assumed that "while all ordinary expenses incurred in the payment of its own officers may be met by the department under the law, and in accordance with usage, the chief burden should be borne by the city of San Francisco." "No municipality," he added, "has ever depended financially upon the Government, under like circumstances, though there have been numerous parallel cases during epidemics of yellow fever." (Appendix, page 30.) In the course of the conference it was made clear to us, while the Legislature at its session in 1901 had fortunately made an appropriation for health purposes to be expended under your direction, that you did not have the legal right, even if the desire existed, to permit any portion of it to be expended, except by State officials. It was also made apparent by telegrams received from Washington that our Senators, instead of assisting in clearing up the situation, were accentuating its gravity by accepting without challenge the allegations that bubonic plague prevailed in San Francisco, and by absolutely disregarding all the evidence which tended to show that the disease did not exist in San Francisco at the time and had not existed. (Appendix, page 31.)

Accordingly, as the result of the conference of February 27, 1901, and in response to the professed desire of the Secretary of the Treasury, it was decided by you to send a commission to Washington to go over the matter with the authorities in that city and to avert, if possible, the threatened quarantine. The commission left this city on March 3d and arrived in Washington on the 7th. On the morning of the 8th the Secretary of the Treasury was waited upon and your position was fully presented by Mr. W. F. Herrin, who spoke for the commission. He made clear to the Honorable Secretary that, while you were convinced

there was no ground for the assertion that there was or had been bubonic plague in San Francisco (an opinion shared by the members of the commission), you were desirous of coöperating with the Federal health authorities in making their investigations, and in taking such precautions as would serve to allay any apprehension that might have been created outside of California by the alarmist reports published in certain papers, and which had been telegraphed all over the world.

The spokesman of the commission also called the Honorable Secretary's attention to the fact that through misapprehension or design the special commissioners appointed by the Treasury Department for the purpose of ascertaining the existence or non-existence of bubonic plague in San Francisco, did not call upon you until after they had concluded their labors, although you had urged that "coöperation with the State authorities by such experts should be advised in order that the State may select eminent home bacteriologists and physicians, as well as, if deemed necessary, bacteriologists and physicians from other States and countries, to examine the same suspected cases, so as to arrive at a correct and impartial conclusion"; and had urged as a reason for making this appeal: "The irreparable injury heretofore done to this State (California) by unfair and ex parte examinations." (Appendix, page 21.)

These and other representations made to the Honorable Secretary influenced him to accede to your very reasonable request that the State should be permitted to protect its interests, and your commission was referred to the Supervising Surgeon-General, Marine Hospital Service, to discuss with him the outlines of a plan of action. A satisfactory agreement was soon reached, the nature of which is disclosed by the following correspondence:

TREASURY DEPARTMENT,
OFFICE OF THE SUPERVISING SURGEON-GENERAL MARINE HOSPITAL SERVICE,
WASHINGTON, March 11, 1901.

MR. JOHN P. YOUNG, *Chairman Committee Representing the Governor, Mayor of San Francisco, and Business Interests of California, Washington, D. C.:*

SIR: I transmit herewith a letter, dated March 9th, from the Surgeon-General of the Marine Hospital Service, outlining the understanding which has been arrived at between yourselves and this department, as a result of the conference on March 9th.

In transmitting the same, I wish to express the appreciation of this department of the visit of your committee and its spirit of friendly conference. I trust, also, that the results so earnestly desired by both yourselves and the department will be speedily achieved and by methods that may be effective without causing undue alarm.

The department will appreciate an acknowledgment.

Respectfully,

(Signed:) O. L. SPAULDING,
Acting Secretary.

TREASURY DEPARTMENT,
OFFICE OF THE SUPERVISING SURGEON-GENERAL MARINE HOSPITAL SERVICE,
WASHINGTON, March 9, 1901.

The Honorable the Secretary of the Treasury:

SIR: Referring to the conference, held in accordance with your instructions after the meeting in your office this forenoon, with the representatives of the Governor of California, the Mayor of San Francisco, the press, the railroads, and the business interests

of San Francisco, I have to inform you that an understanding has been reached, stated somewhat informally as follows:

The visiting representatives have expressed a desire for hearty coöperation of the State and city authorities interested in the work, which is made necessary in view of the report of the commission; and they desire, while this work shall be done by the city and State authorities, the services of some expert officer of the Service to give advice as to the methods to be pursued, agreeing that his recommendations shall be carried out, and that the work shall be begun at once.

I have informed them also that so far as can be seen at the present time the principles enunciated in my telegram of January 9, 1901, to Surgeon White, copy of which is inclosed, are about what should be adopted at the present time, with the understanding that it is possible that future developments may require more radical measures, though it is not expected.

It is understood also that the burden of expense falls upon local or State authorities, though, of course, the Department will meet the salaries and incidental expenditures of its own officers.

It is the desire of the Treasury Department, as well as of the bureau, that these affairs shall be conducted with the least possible interruption to commerce and the least possible excitation of alarm.

Surgeon White, now in San Francisco, is the officer of the Service who will be the representative of the bureau and of the department in this matter, and who, it is understood, is entirely acceptable to all parties.

Respectfully,

(Signed:) WALTER WYMAN,
Supervising Surgeon-General, M. H. S.

One inclosure, copy of January 9, 1901, telegram to Surgeon White, San Francisco, Cal.

(Telegram.)

WASHINGTON, D. C., January 9, 1901.

DR. J. H. WHITE, *Occidental Hotel, San Francisco, Cal.*:

Regarding plague in San Francisco, you might say situation not acute. Experience in Oporto, Santos, Glasgow, and climatic conditions in 'Frisco make it more a matter of future menace—as instanced in British Medical Journal of December 1st, page 1614. It was present in Calcutta two years before acknowledged. Therefore, more to prevent future catastrophe than from present alarm, measures should be taken as necessity arises, nor need they be (taken) in such manner as to excite alarm, but should include inspection, isolation, and disinfection, as in smallpox (in same manner).

If assured of this, publication would be unnecessary. Use this as your judgment dictates.

(Signed:) WYMAN.

It is proper to call attention to the telegram which forms a part of this correspondence, as it was freely charged in the press, and by medical journals, that your commission had induced the Federal health authorities to consent to the suppression of facts. It will be noted that the date of the telegram to Dr. J. H. White was January 9th, and that in it Surgeon-General Wyman advised him to take his measures in such a manner as not to excite alarm; and that publication would be unnecessary. This is all your commission asked, and it preferred the request in the full assurance that the only harm that could be done would be that caused by the dissemination of statements calculated to injure the reputation of California by fastening upon it the reputation of being subject to plague.

The arrangement thus reached by your commission was promptly

reported to you, and at your request, on our return from Washington, we met in the office of Hon. James D. Phelan, Mayor of San Francisco, to consult with you and that official respecting the mode of carrying out the agreement. At this meeting you indicated the extent to which you thought the State should go in meeting the views of the Federal authorities. Mayor Phelan, however, was unable to make any specific promises on behalf of the city, but expressed a willingness to do all in his power to comply with the demands which would arise as the work of cleansing Chinatown proceeded. The conclusion was reached by those in consultation that the pledge made for you by your commission should be promptly redeemed, and Dr. J. H. White of the Marine Hospital Service, who was in waiting, was called in and asked to outline his plan of campaign. He said that he should require the cleansing, disinfection, and fumigation of the district known as Chinatown; that it would be necessary to provide and maintain a crematory to dispose of the rubbish; a laboratory for bacteriological purposes; a building available for use as a detention barracks; a hospital for any subjects that might be discovered, and a morgue and hall of tranquillity. As Dr. White's large experience in such matters qualified him to speak understandingly, his opinion as to the probable cost of carrying out the cleansing, disinfection, and fumigation, which he said would be necessary, was asked. He answered that he had given the subject some attention, but could not make a close estimate. He thought, however, that the work would necessitate an expenditure of at least \$100,000.

It being impossible at this meeting for Mayor Phelan to definitely state what part of the expense of cleansing Chinatown, and for providing the facilities which Dr. White had demanded, could be assumed by the city of San Francisco, another consultation was arranged for the ensuing day, April 2d. At this conference the following agreement was entered into between yourself, on behalf of the State, and Mayor Phelan, on the part of the city:

The State will clean up Chinatown in its own way and with its own money. Will fumigate and disinfect until \$25,000 of State money is spent.

City will erect and maintain a crematory to dispose of rubbish found by the State.

City will erect and maintain laboratory.

City will provide and maintain detention barracks and hospital.

City will provide morgue and hall of tranquillity, and maintain same.

Although this agreement imposed the greater part of the burden of cleansing, disinfecting, and fumigating the Chinese quarter of San Francisco upon the State, your commission, considering the exigency and the possible consequences of delay, heartily approved the arrangement entered into, and urged that the work be proceeded with at once, in order that the pressure which was undoubtedly being exerted to have the Federal authorities erect a quarantine against California should be relieved. At your request your commission consented to continue act-

ing in its advisory capacity, and agreed with you that it was desirable to have an efficient corps of physicians, acting under the direction of the State Board of Health, to assist in the examination of every alleged case of bubonic plague brought to the attention of the Federal authorities while making their investigations in this city. The importance of this course of action was demonstrated by the results, which fully justified the position taken by you from the beginning, namely, that there was no ground for the charge that cases of genuine bubonic plague had been found in San Francisco.

Although your commission, at the conclusion of this meeting of April 2d, announced to Dr. J. H. White, the official designated by the Federal health authorities to direct and supervise the work of cleansing, disinfecting, and fumigating Chinatown, the readiness of the State to proceed, he postponed the commencement of operations until April 9th. On the morning of that day a force of forty-three men, subsequently largely increased, was put to work, and the instructions of Dr. White were rigidly adhered to, your commissioners taking pains to hear from him at frequent intervals, in order to learn if everything was proceeding according to his desires. The process adopted, as prescribed by Dr. White, and the progress of the work, are fully described in the accompanying report of the State Board of Health of August 27, 1901. (Appendix, page 37.) In all 1,185 buildings, containing 16,888 rooms, and numerous hallways, stairways, sinks, yards, basements, sub-basements, water-closets, and roofs were cleansed, disinfected, and fumigated. Fifteen hundred and eleven loads of garbage, or 4,533 cubic yards, were removed by the State force. The carting and burning of this material were done at the expense of the city. The number of men employed daily on all the work ranged from 130 to 150. That the business was done expeditiously and economically will be inferred from the fact that it was accomplished for about one-fourth the amount estimated by Dr. White. Those in charge are to be specially commended for the economies practiced in the purchase of supplies. We find from the reports rendered by the State Board of Health that by disregarding the recommendation of Dr. White to purchase sulphur, bichloride of mercury, dutch ovens, etc., in large quantities a considerable saving was effected. Thus the work of disinfecting and fumigation was thoroughly performed with 300 pounds of sulphur, although the Marine Hospital Service estimated that thirty tons would be necessary. Fifty pans were bought, and twenty only used, but the requisition of the Federal official called for 200.

In addition to the work of cleansing, disinfecting, and fumigating, the State Board of Health undertook the important duty of assisting the Federal health officers in their search for suspicious cases. A doubt having arisen in the minds of Dr. White and his staff regarding

the accuracy of the number of sick Chinese reported in the quarter, a corps of five physicians was employed by the State Board of Health to make a house-to-house canvass. These physicians made a daily report of the work performed by them and also a report of the Chinese whom they found sick, giving a history of each case and a diagnosis of the disease. Each block in the quarter was covered by the State's physicians eight times, and in all of the seventeen blocks only 307 sick cases were reported. A morgue was established by the Marine Hospital Service at 638 Merchant Street, and any Chinese man, woman, or child dying in the city and county of San Francisco was, by the order of Dr. White and his associates, immediately removed thereto and treated as a case of bubonic plague until the autopsy proved the contrary. Under an order issued by the City Board of Health of San Francisco, no Chinese person dying in the city and county of San Francisco could be buried until a certificate of death was countersigned by either of the three physicians in charge of the morgue and laboratory conducted by the Federal officials. At all the autopsies the State was represented by one or more physicians, and no autopsy was held without a representative from the State Board being present. The State had as its bacteriologist Dr. S. M. Mouser, who conducted a very thorough and complete investigation in all cases that were considered in any way suspicious.

The wisdom of these precautions was soon made evident. Many cases were reported which were pronounced suspicious by the physicians employed by the Marine Hospital Service, but although between April 8th and August 27th 103 autopsies were performed, not one case was found which could be pronounced bubonic plague. The report of the State Board of Health which gives the clinical history of these cases and the circumstances attending the autopsies indicates that there was an eager desire on the part of those who contended that bubonic plague existed in this city to establish that fact. In one instance an attempt was made to quicklime a body in order to destroy the evidence which would conclusively prove that the deceased had died of pulmonary tuberculosis, which fact had been ascertained at the autopsy. Had not the State Board's physicians taken the attitude they did the evidence is strong that it would have been pronounced a genuine case of plague. Many other circumstances are cited tending to show that there was a disposition manifested to keep up the impression that bubonic plague had prevailed in the city and that it was still present, but the watchfulness of the State Board's representatives prevented any misunderstanding on that point. And in view of the necessity of thorough watchfulness in this matter, your commission, at its last meeting with you, approved the continuance by you for at least six months of measures to secure complete information as to all suspected or alleged cases of plague, and generally to see that the health conditions of Chinatown

were not in any way misrepresented. The monthly expenses of such measures were then estimated at about \$1,000 per month, and your commission entirely approves this and all other expenses incurred by the State authorities in this whole matter. IT IS SIGNIFICANT IN THIS CONNECTION THAT THE LATEST CASE OF BUBONIC PLAGUE ALLEGED TO HAVE BEEN DISCOVERED IN THIS CITY WAS ON APRIL 8TH, THE DAY BEFORE THE STATE BOARD COMMENCED ITS ACTIVE INVESTIGATIONS. AFTER THAT DATE NO CASE WAS DISCOVERED, ALTHOUGH MANY WERE ASSERTED TO BE SUCH UNTIL AN AUTOPSY DISPROVED THE ASSERTION.

The commission heartily commends the attitude taken by you in your answer to the telegram from Walter Wyman, Surgeon-General, Marine Hospital Service, dated June 18, 1901, which seems to have closed the incident, and in which he says, "IT IS A MATTER OF MUTUAL CONGRATULATION THAT NO CASES HAVE BEEN FOUND DURING THE PROGRESS OF THIS WORK" (that is, the cleansing of Chinatown and the investigation of the character of every case of sickness found within its limits), and suggests that certain supplementary work recommended by Dr. White (Appendix, page 36,) should be carried out. Your declaration that "there is no occasion at this time for the further investigations suggested by Dr. White" is fully concurred in by us, and we trust that the determination expressed by you that "one-sided or secret examinations such as have in the past been witnessed in San Francisco, to its irreparable detriment and to that of the whole State, * * * cannot again be permitted," will be rigidly adhered to.

In conclusion, your commission desires to express the opinion that the result of the steps taken by you has been to wholly disprove the allegation that bubonic plague has existed in San Francisco. Had the same precautions been taken before April 8, 1901, that were adopted after that date we should not have been menaced with quarantine, nor would we have had imposed upon us the expenditure of a large sum of money, every dollar of which was extorted by the necessity of warding off the evil consequences of the false reports concerning the health of the city and State. There can be no reasonable doubt that the autopsies made prior to April 8, 1901, would have had the same result as those made after that date had there been present doctors who were not interested in creating the impression that San Francisco was plague infected. The fact that no plague has been found since April 8, 1901, and the further fact that the disease, although it was alleged to have made its appearance on March 6, 1900, did not become epidemic, and that no two cases of what was termed bubonic plague appeared in the same house, should carry conviction to every candid mind that San

Francisco is and has been absolutely free from the disease, and that those who said it existed were either mistaken or deliberately misrepresented the facts.

JOHN P. YOUNG,
WM. F. HERRIN,
T. T. WILLIAMS,
H. T. SCOTT,

Commissioners.

FREMONT OLDER,

Commissioner of the City of San Francisco and of the State.

In signing the above report I desire to express the opinion that in the earlier reports of the existence of plague, the Mayor and Board of Health and other officials of San Francisco were sincere in their belief that the reports of physicians that the plague was here were true. I am of the opinion, however, that later on the judgment of the Board of Health became corrupted by its dislike to confessing mistake and by its desire of proving that its erroneous conclusions were justifiable.

Certainly no blame should attach to officials for taking precautions against disease, which excellent authority declared existed. At the same time no excuse should be made for physicians and others who attempted to palm off as plague diseases of a non-contagious character.

T. T. WILLIAMS.

Conference Committee:

W. J. MARTIN,
HUGH HUME.

APPENDIX

TO THE

REPORT OF THE SPECIAL HEALTH COMMISSIONERS

APPOINTED BY THE GOVERNOR TO CONFER WITH THE FEDERAL
AUTHORITIES AT WASHINGTON RESPECTING THE
ALLEGED EXISTENCE OF BUBONIC
PLAGUE IN CALIFORNIA.

ALSO

REPORT OF STATE BOARD OF HEALTH.

APPENDIX TO THE REPORT OF THE SPECIAL HEALTH COMMISSIONERS.

Telegram from Hon. John Hay, U. S. Secretary of State, to the Governor.

WASHINGTON, D. C., May 31st, 1900.

His Excellency GOVERNOR HENRY T. GAGE, *Sacramento, Cal.:*

Chinese Minister complains that city authorities of San Francisco have quarantined Chinatown without cause and ignoring injunction of court when there is no sickness. He considers this a violation of treaties, and remonstrates against it. Please report state of facts.

JOHN HAY.

Telegram from Hon. John Hay to the Governor.

WASHINGTON, D. C., June 7th, 1900.

His Excellency GOVERNOR GAGE, *Sacramento, Calif.:*

Chinese Minister complains that the health authorities at San Francisco intend forcing thousands of Chinese to detention camp, although no plague exists. He remonstrates against this, and fears resistance by force.

JOHN HAY.

Telegram from the Governor to Hon. John Hay, Secretary of State.

SAN FRANCISCO, June 13, 1900.

To His Excellency JOHN HAY, *Secretary of State, Washington, D. C.:*

SIR: In reply to your telegram of date May 31, I have the honor to report:

First—That no case in San Francisco or California has been diagnosed as bubonic plague by any attending physician while the victim was alive, nor by the attending physician after death. In some of the suspected cases death has occurred when no regular physician was in attendance. There have been in all only eleven suspected cases among a population of 35,000 Chinese (15,000 of whom are quarantined), and no cases among whites and other races. The examinations made after death of the bodies of the suspected cases since the alleged discovery

of the disease, more than three months ago, fail to furnish satisfactory proof of plague.

Second—That the quarantined district contains upward of 15,000 Chinese subjects, 3,500 of whom are unable to support themselves by virtue of the quarantine.

Third—That full and fair investigation has been denied the physicians of the Chinese by the City Board of Health.

Fourth—That the Chinese were forced to appeal to the courts, and were then accorded the right of investigation into the cause of death of the dead suspects.

Fifth—That since the procurement of the order of court, granting privilege to the white physicians of the quarantined Chinese to visit the sick and be present and take part in autopsies had, neither the City Board of Health nor Federal officers have been able to discover any bubonic plague case, dead or alive.

Sixth—That there has been no epidemic in Chinatown.

Seventh—That the municipal records show the proportion of deaths in Chinatown has been no greater than that of any other portion of San Francisco since the date of the discovery of the alleged plague in Chinatown.

Eighth—That I cannot find proof that the plague alleged to be here is either infectious or contagious. I find no proof that any person has contracted it from another; and I further find that certain individuals who have been repeatedly exposed at autopsies and elsewhere to the alleged plague, and others who have moved about in the houses and rooms where the suspects expired, having done so without taking any precaution whatever against the supposed malady, have neither contracted the same nor spread the disease elsewhere.

Ninth—That no two persons of the same family have contracted the disease, and that no two cases have occurred within the same house or building, no matter how great the exposure may have been.

Tenth—That the medical gentlemen and experts of the City Board of Health and the Federal quarantine officers who have ventured the injurious opinions which have spread broadcast over the world the rumor of the existence of the dreadful plague in the great and healthful city of San Francisco have never seen a living case of plague; whereas, some among the physicians, surgeons, and scientists with whom I have advised have had personal experience and wide opportunities in observing bubonic plague when it was raging in India and elsewhere, and they all pronounce the suspected cases here not bubonic plague.

Eleventh—From the best light I have been able to procure, and from a most careful consideration of the whole subject, I am pleased to inform Your Excellency that I firmly believe no case of bubonic plague has at any time existed within the borders of our State.

Twelfth—That if the cases referred to were genuine plague, even then the quarantine as conducted by the City Board of Health, in conjunction with the Federal quarantine officer, is discriminating against the Chinese, and also unreasonable, according to information derived from the highest authority here obtainable.

Thirteenth—It is undetermined by the court whether the injunction referred to has been violated.

Fourteenth—Since the report to Your Excellency involves, among other things, the question whether there is plague in Chinatown, and also vitally touches the commercial and other interests of San Francisco, as well as deeply concerns the welfare of the entire State, I have deemed it my duty to call into consultation distinguished physicians, surgeons, and bacteriologists, able financiers and business men and others, as well as my eminent predecessor in office, the Hon. James H. Budd, some of whose names are, therefore, in concurrence hereto attached.

HENRY T. GAGE.

We concur in the foregoing conclusion that bubonic plague does not exist, and has not existed, within the State of California:

Physicians of the Regular School: L. C. Lane, President Cooper Medical College; C. N. Ellinwood, M. D., Professor Cooper Medical College; Winslow Anderson, M. D., M. R. C. P. Lond., M. R. C. S. Eng., President College of Physicians and Surgeons of San Francisco.

Physicians of the Homœopathic School: Edwin S. Breyfogle, M. D.

Bankers, Merchants, etc.: Levi Strauss, President of Levi Strauss & Co.; James H. Budd, former Governor of California; William Alvord, President of Bank of California; Robert J. Tobin, Hibernia Savings and Loan Society; Adam Grant, of Murphy, Grant & Co.; Lewis Gerstle, President Alaska Commercial Company; Isaias W. Hellman, President Nevada National Bank; Henry F. Fortmann, President Alaska Packers Association; A. B. Spreckels.

Telegram from the Governor to President McKinley.

SAN FRANCISCO, CAL., June 16, 1900.

THE PRESIDENT, *Washington, D. C.*:

Dr. Kinyoun, the Federal Quarantine Officer of this port, claiming to act under your authority, has unreasonably and unnecessarily quarantined this State in opposition to my full and fair report to the Honorable Secretary of State, under date of June 14, 1900, and also, among other things, in opposition to the opinion of Judge Morrow, of the United States Court, rendered yesterday, dissolving the quarantine.

Through Dr. Kinyoun's conduct in the past, as well as his present action, the reputation of the State, the rights of citizens as well as the

rights of foreign subjects, are outrageously impaired. The following is a copy of his last orders, served upon the various transportation companies:

OFFICE OF MEDICAL OFFICER IN COMMAND,
MARINE HOSPITAL SERVICE, SAN FRANCISCO QUARANTINE.

SAN FRANCISCO, CAL., June 15, 1900.

Santa Fé Railway Company, San Francisco, Cal.:

GENTLEMEN: In accordance with the law of March 27, 1890, and the regulations made thereunder and promulgated by order of the President under date of May 21, 1900, you are hereby notified and directed until further orders not to issue transportation to any one leaving San Francisco for other States or Territories of the United States, unless on presentation of certificate signed by a Marine Hospital officer. Inspectors of the Marine Hospital Service now stationed at the State borders have been instructed to allow no passengers coming from San Francisco to pass the borders of the State on any common carrier unless a certificate is furnished. This has been made necessary on account of the lifting of the quarantine by order of the Federal court, thereby allowing people who have possibly been exposed to the infection of plague to leave this city for other States.

Respectfully,

J. J. KINYOUN,
Surgeon M. H. S., Quarantine Officer A. M. R.

I am informed that Dr. Kinyoun transmitted dispatches yesterday to Washington, through official channels, wherein are contained unwarranted statements and improper reflections. He has been advised by the United States District Attorney that his course is unjustifiable, and he refuses to withdraw his last order of general quarantine without further instructions from Washington.

On behalf of the people of California, I respectfully protest against his actions, and request immediate relief for the people of this State, the traveling public, and the commercial interests of the coast.

Your most obedient, humble servant,

HENRY T. GAGE,
Governor of the State of California.

**Condition of Affairs in June, 1900, as Shown by the Following
Excerpt from Pages 10 and 11 of Governor Gage's First Bien-
nial Message to the Legislature January 7, 1901.**

While these events were transpiring, the City Board of Health of San Francisco had already quarantined the Chinese district, but a test case having been heard in the United States Circuit Court before the Hon. W. W. Morrow, Judge thereof, the city quarantine was held illegal by a decision rendered June 15, 1900. In the course of this decision the eminent Judge observed as follows: "*If it were within the province of this Court to decide the point, I should hold that there is not, and never has been, a case of plague in this city.*"

Upon the day following the decision of the Circuit Court and the raising of the quarantine about the Chinese district, Dr. J. J. Kinyoun, the

Federal quarantine officer (who had been previously a party to some of the investigations of those favoring the plague scare), arbitrarily and without proper cause quarantined the entire State. This summary and unjustifiable action appalled our citizens. The fruit and other industries were threatened with ruin. Business was partly paralyzed. Gloom settled over our State, and the promise of a prosperous and happy ending of the year was dispelled. On the night of Saturday, June 16, 1900, the date of the arbitrary quarantine of Dr. Kinyoun, I telegraphed the President, appealing in behalf of the people of the State to release the quarantine, and I referred for the facts to my previous report to the United States Secretary of State. Appeals to the President were also made by the Republican State Central Committee and by its officers, and by many distinguished citizens irrespective of party, while the members of the California Republican Delegation to the Republican National Convention personally called upon the President at Washington, making similar appeals.

The President, being sufficiently advised of the true condition of affairs, acted promptly, and on Monday, June 18, 1900, he communicated with the Secretary of the Treasury, so that U. S. Surgeon-General Wyman was directed to order a release of the State quarantine, which was done at once.

Although our great and just President acted almost immediately when the injustice of Dr. Kinyoun and the said certain city officials of San Francisco was submitted to him, still, prior to the establishment of the quarantine, other States in the Union, being misled by the reports from the said officials who fostered the plague scare, quarantined against us, a course which was followed by the Republic of Mexico and a few other foreign States. Even yet, on account of the reports of the said city officers and of Dr. Kinyoun, the State of Texas continues an unjust quarantine against us, checking travel and interfering with the shipment of our commodities.

Telegram from Senator Perkins to the Governor.

WASHINGTON, D. C., January 26th, 1901.

HON. HENRY T. GAGE, *Governor, Sacramento, California:*

Treasury Department has appointed commission of experts not connected with any department, two of them having studied plague in China and India, familiar with it clinically and microscopically, third member having had exceptional advantages for its study, all of highest possible standing, representatives of University Pennsylvania, Chicago, and Michigan; part of commission already on ground. They are instructed to be unprejudiced and independent, avoiding undue publicity and expressing no opinions until after report made to Washing-

ton, and they are directed at suitable time to pay their respects to you. Am informed this demanded by action of other States and not inspired by immediate alarm, but that if their findings should be affirmative it will demonstrate necessity of action to prevent situation becoming critical in the future. Authorities here desirous matter should be managed with discretion both in determining situation and treating it and without giving unnecessary concern. The matter is so far confidential, has not been given to press.

GEO. C. JENKINS.

Telegram from the Governor to Senator Perkins.

EXECUTIVE DEPARTMENT,
SACRAMENTO, CAL., January 28, 1901.

HON. GEORGE C. PERKINS, *U. S. Senate, Washington, D. C.:*

A dispatch received by me yesterday forenoon, through Western Union, dated January twenty-sixth, signed Geo. C. Jenkins. Was stated as confidential, but contents were published in San Francisco Chronicle yesterday morning before its delivery. Was telegram sent by you? If so, was it designed for publicity and revealed at Washington, or shall I hold Western Union Company responsible for divulging contents?

HENRY T. GAGE.

Telegram from Senator Perkins to the Governor.

WASHINGTON, D. C., Jan'y 29th, 1901, 9:20 A. M.

HON. HENRY T. GAGE, *Governor, Sacramento, Cal.:*

I sent you Saturday afternoon confidential dispatch after consultation with Treasury Department. Newspaper press had no knowledge of its contents until a dispatch in New York Herald Monday announced that a bacteriologist from Michigan had left for California.

GEO. C. PERKINS.

Telegram from the Governor to President McKinley.

EXECUTIVE DEPARTMENT,
SACRAMENTO, CAL., January 28, 1901.

THE PRESIDENT, *Executive Mansion, Washington, D. C.:*

I have been informed that Treasury Department has sent a commission of experts to this State to examine the pretended plague cases heretofore reported, as well as present health conditions, which commission is now about to commence investigations, ignoring the State

authorities in the matter, and proceeding in line with reports heretofore made by Dr. J. J. Kinyoun to Surgeon-General of Marine Hospital Service.

I hope that in this matter of vital interest to the people of California there is no intentional discourtesy on the part of officer directed by the Treasury Department to supervise this investigation.

In this matter, which concerns deeply the welfare of this State, I respectfully request that coöperation with the State authorities by such experts should be advised, in order that the State may select eminent home bacteriologists and physicians, as well as, if deemed necessary, bacteriologists and physicians from other States and countries, to examine the same suspected cases, so as to arrive at a correct and impartial conclusion.

I dislike much now to call your attention to this matter, but the irreparable injury heretofore done to this State by unfair and ex parte examinations warrants this appeal.

Your most obedient, humble servant,

HENRY T. GAGE,

Governor of California.

Telegram from Hon. Lyman J. Gage, U. S. Secretary of the Treasury, to the Governor.

WASHINGTON, D. C., January 30, 1901.

HON. HENRY T. GAGE, *Governor, Sacramento, Cal.:*

Replying to your telegram January 29th, addressed to the President, the commission appointed by this Department embraces experts who, by reason of technical knowledge and personal experience with the disease, make it the highest possible authority. They are from great institutions of learning, entirely disconnected with any department of the Government, and are chosen from different sections of the country wholly on account of their attainments, and have been directed to call upon you for the purpose of paying their respects and acquaint you with their work. In no sense, therefore, is any discourtesy intended, and the Department desires the commission to make these investigations in its own way, unhampered by detailed instructions from the Marine Hospital Service, or any other influence. It is expected to ascertain the facts, and the Department does not feel it should hamper the commission in its method of investigating and getting at the facts. It will be independent of Dr. Kinyoun or any previous reports. Its conclusions are to be based on its own observations, and will be made known to this Department alone, and promptly forwarded to you by the Department.

L. J. GAGE, Secretary.

Letter of Secretary Gage to the Plague Commission.

You are hereby appointed special commissioners of this Department for the purpose of ascertaining the existence or non-existence of bubonic plague in San Francisco, or other port in the State of California, under such instructions as will be furnished you by the Surgeon-General of the U. S. Marine Hospital Service.

L. J. GAGE, Secretary.

Instructions Given by Surgeon-General Wyman.

SIR: I enclose herewith a letter signed by the Honorable Secretary of the Treasury appointing you a special commissioner of the Treasury for the purpose of ascertaining the existence or non-existence of bubonic plague in San Francisco or other ports in California, under such instructions as shall be furnished you by the Surgeon-General of the U. S. Marine Hospital Service. The commission is composed as follows: Prof. Simon Flexner, University of Pennsylvania, chairman; Prof. Novy, University of Michigan, and Prof. Barker, University of Chicago, recorder. A copy of the same letter has been furnished the other members of the commission.

In accordance with the letter of the Honorable Secretary of the Treasury you are directed to proceed at the earliest practical date to San Francisco, where the commission will hold its first meeting at the Occidental Hotel. You are informed that bubonic plague has been reported to exist in San Francisco and its existence has also been strenuously denied. You are directed to place yourself in communication with the proper local authorities with a view of obtaining facilities for the examination of cases, either deceased or living, suspected of being infected with this disease. You are further informed that it is the desire of this bureau that your investigation should be entirely unprejudiced and independent. It is left with the commission to determine the proper location to pursue this investigation. You may, with the approval of the bureau, if convenient, obtain the use of the laboratories of public institutions in San Francisco, etc.

You are requested at least two or three times a week to make a brief written report as to the status of your investigation, not necessarily technical, in order that the bureau may be informed on the work of the commission. At such time as the commission may deem proper it will call and pay its respects to the Governor of the State. They will report all their proceedings and findings, properly prepared by the recorder, which shall be signed by the commission and immediately transmitted. The chairman of the commission, when a conclusion has been reached, will telegraph the same briefly to the bureau and your findings will not be given out until approved by the bureau. You will wait final orders from the bureau before departing from San Francisco.

WYMAN, Surgeon-General.

Governor's Message to Legislature.

Upon the receipt of the dispatch from Hon. Lyman J. Gage, dated January 30, 1901, the Governor transmitted a message to each branch of the Legislature, of which the following is a copy :

EXECUTIVE DEPARTMENT, STATE OF CALIFORNIA,
SACRAMENTO, January 31, 1901.

I have the honor to represent to your honorable body that upon Sunday, the twenty-seventh day of this month, I received information that the United States Treasury Department had sent to this State a commission of experts to make an ex parte investigation into the condition of the public health of our State, and that some of the distinguished members of said commission were already in the city of San Francisco.

Realizing the gravity of an investigation conducted in secret, without any opportunity on the part of the State authorities to examine into the work as it is intended to be conducted by the said commission appointed by the United States Treasury Department, I deemed it of the most immediate importance to inquire of the President the reasons and purpose of this secret commission, and on the 28th instant I transmitted the following telegram to the President of the United States :

EXECUTIVE DEPARTMENT,
SACRAMENTO, CAL., January 28, 1901.

THE PRESIDENT, *Executive Mansion, Washington, D. C.* :

I have been informed that Treasury Department has sent a commission of experts to this State to examine the pretended plague cases heretofore reported, as well as present health conditions, which commission is now about to commence investigations, ignoring the State authorities in the matter, and proceeding in line with reports heretofore made by Dr. J. J. Kinyoun to Surgeon-General of Marine Hospital Service.

I hope that in this matter of vital interest to the people of California there is no intentional discourtesy on the part of officer directed by the Treasury Department to supervise this investigation.

In this matter, which concerns deeply the welfare of this State, I respectfully request that coöperation with the State authorities by such experts should be advised, in order that the State may select eminent home bacteriologists and physicians, as well as, if deemed necessary, bacteriologists and physicians from other States and countries, to examine the same suspected cases, so as to arrive at a correct and impartial conclusion.

I dislike much now to call your attention to this matter, but the irreparable injury heretofore done to this State by unfair and ex parte examinations warrants this appeal.

Your most obedient, humble servant,

HENRY T. GAGE,
Governor of California.

Yesterday afternoon I received from the Honorable the Secretary of the Treasury the following telegraphic reply:

WASHINGTON, D. C., January 30, 1901.

HON. HENRY T. GAGE, *Governor, Sacramento, Cal.* :

Replying to your telegram January 29th, addressed to the President, the commission appointed by this Department embraces experts who, by reason of technical knowledge and personal experience with the disease, make it the highest possible authority. They are from great institutions of learning, entirely disconnected with any department of

the Government, and are chosen from different sections of the country wholly on account of their attainments, and have been directed to call upon you for the purpose of paying their respects and acquaint you with their work. In no sense, therefore, is any discourtesy intended, and the Department desires the commission to make these investigations in its own way, unhampered by detailed instructions from the Marine Hospital Service, or any other influence. It is expected to ascertain the facts, and the Department does not feel it should hamper the commission in its method of investigating and getting at the facts. It will be independent of Dr. Kinyoun or any previous reports. Its conclusions are to be based on its own observations, and will be made known to this Department alone, and promptly forwarded to you by the Department.

L. J. GAGE, Secretary.

From this answer of the Honorable the Secretary of the Treasury, it is apparent that State coöperation is refused, and that the investigation of the commission will be conducted wholly on such lines as will exclude any possible opportunity on the part of the State to either verify or refute any position which may now or hereafter be taken by the said commission or the United States Marine Hospital Service.

Under these circumstances, the State is now forced to rely upon an investigation pursued by a commission which it has neither invited to its territory nor in the selection of whose personnel it has had any voice.

The previous inaccurate reports respecting the existence of bubonic plague in this State, which has resulted in the injury to the reputation for health, as well as in injury to its citizens, industries, and commerce, have been the consequence of a system of ex parte investigation, without opportunity of State examination or superintendence.

The repetitions of such investigations upon secret lines, without public scrutiny under State authority, as have been heretofore pursued, will imperil the welfare of every citizen and inhabitant of this State, and will bring distress to the farmer, orchardist, horticulturist, manufacturer, tradesman, merchant, as well as to all our marine and land transportation companies.

The meanest criminal under the Constitution of the United States can not be denied the right of being confronted by his accusers, listening to their testimony, and subjecting them to cross-examination; and shall it be contended that the great State of California shall be unjustly denied a similar privilege in the opportunity of facing those who, impugning the public health, as the result of a secret and one-sided examination, might choose to cast an irremovable blemish upon the State's sanitary condition, on which the personal rights and property of her citizens in a large measure depend?

The State being denied a hearing, I conscientiously believe, therefore, that legislation is immediately and urgently needed by which our State may assume that general and unrestrained control over the subject of the public health within its borders which so vitally concerns her, and which is her inalienable right by virtue of her sovereignty.

Impelled by the sense of public duty, in view of this exceedingly

grave situation, I rely upon the discretion of your honorable body to take such appropriate action in the premises as may be deemed advisable.

HENRY T. GAGE,
Governor of the State of California.

Telegram from the Governor to President McKinley.

EXECUTIVE DEPARTMENT,

SACRAMENTO, Feb. 17th, 1901.

THE PRESIDENT, *Executive Mansion, Washington, D. C.:*

In reply to my telegram to you of date Jan. 28th, I received telegram from Secretary Gage, as follows :

WASHINGTON, D. C., Jan. 30th, 1901.

HONORABLE HENRY T. GAGE, *Sacramento, Calif.:*

Replying to your telegram Jan. 29th, addressed to the President, the commission appointed by this Department embraces experts who by reason of technical knowledge and personal experience with a disease make it of highest possible authority. They are from great institutions of learning, entirely disconnected with any department of the Government, and are chosen from different sections of the country wholly on account of their attainments, and have been directed to call upon you for the purpose of paying their respects and *acquaint you with their work*. In no sense, therefore, is any discourtesy intended, and the Department desires the commission to make these investigations in its own way unhampered by *detailed* instructions from the Marine Hospital Service or any other influence. It is expected to ascertain the facts, and the Department does not feel it should hamper the commission in its methods of investigating and getting at the facts. It will be independent of Dr. Kinyoun or any previous report. Its conclusions are to be based on its own observations, and will be made to this Department alone and promptly forwarded to you by the Department.

1:55 P.M.

L. J. GAGE, Secretary.

On January 31st I received from one of the experts referred to in this dispatch, a letter, copy of which is as follows:

OCCIDENTAL HOTEL

SAN FRANCISCO, CALIF., Jan. 29, 1901.

HON. HENRY T. GAGE, *Governor of California, Sacramento, Calif.:*

DEAR SIR: You have doubtless been informed from Washington that the Federal Government (Treasury Department) has appointed Professor Simon Flexner, of the University of Pennsylvania, Prof. Frederick G. Novy, of the University of Michigan, and Prof. Llewellys F. Barker, of the University of Chicago, as a special commission to ascertain the existence or non-existence of plague in San Francisco or in other ports or places in the State of California. Among the orders given to the commission is one stating that the members of the commission are to pay respects on a suitable occasion to the Governor of the State. The members of the commission respectfully indicate, therefore, that they hope to have the opportunity during their visit here to do themselves the honor of paying their respects to you. In the meantime, the members of the commission are undertaking their investigation with as little publicity as possible. They will be grateful for aid of *any sort* from *any source*. The investigations are to be from the beginning unprejudiced and independent.

I have the honor to be, sir,

(For the commission),

Yours very truly,

LLEWELLYS F. BARKER,

(Recorder).

And replied thereto on February 2d, as follows:

EXECUTIVE DEPARTMENT,
STATE OF CALIFORNIA, SACRAMENTO.

STATE CAPITOL, February 2, 1901.

PROF. LLEWELLYS F. BARKER, *San Francisco, Cal.:*

SIR: By the direction of the Governor, I have the honor to acknowledge the receipt of your communication dated January 29, 1901, in which you state that the members of this special commission appointed by the United States Treasury Department indicate that they hope to have the opportunity, during their visit here, to pay their respects to the Governor.

The Governor expresses his appreciation of the honor and begs leave to state that he will be pleased to receive the members of the commission at the State Capitol at such times as the members may deem proper.

Your obedient servant,

W. I. FOLEY,
Private Secretary.

I heard nothing further from the commission or its members until February 13th, when I received the following letter:

OCCIDENTAL HOTEL, SAN FRANCISCO, CAL., February 12, 1901.

THE HON. HENRY T. GAGE, *Governor State of California:*

DEAR SIR: The members of the commission appointed by the Treasury Department at Washington are very desirous of having the opportunity of calling upon you, and would esteem it a favor if you would indicate a time and place at which they may have the honor of paying their respects to you.

Most respectfully,

SIMON FLEXNER,
F. G. NOVY,
LLEWELLYS F. BARKER.

Immediately upon receipt of this communication I answered same, as follows:

STATE CAPITOL, February 13, 1901.

PROF. SIMON FLEXNER, PROF. F. G. NOVY, PROF. LLEWELLYS F. BARKER, *Occidental Hotel, San Francisco, Cal.:*

SIRS: By direction of the Governor, I have the honor to acknowledge the receipt this day of your esteemed communication dated February 12, 1901, in which you express your desire that the Governor should indicate a time and place at which you may pay your respects to him, and in response thereto the Governor expresses his appreciation of your courtesy, and begs leave to say that he will be pleased to receive you at a place more convenient to you than that indicated in a reply to your previous letter, namely, in San Francisco, at room 380 of the Palace Hotel, on the first floor, on next Saturday afternoon, at two o'clock P. M., on which day the Governor will be in San Francisco on State business, and he trusts that such time and place may meet with your approval.

I have the honor to be, sirs,

Your most obedient humble servant,

W. I. FOLEY,
Private Secretary.

The time and place last appointed was the first opportunity given me to meet the members of the commission. At this interview I tendered these gentlemen every assistance the State could render them in the premises, and expressed the desire to be permitted to investigate the question at issue jointly with them. To-day, however, they inform me that their report will be ready for transmission to Washington to-mor-

row. Thus the State has been denied every participation in this investigation, while at the same time the commissioners have been constantly aided by Dr. Kinyoun's assistants. This the commissioners admitted in an interview with me yesterday. Should their report to the Department state that the plague exists here, such conclusion will be regarded by our people as the result of an unfair, unjust investigation. Before such report receives the approval of the Federal authorities at Washington, or be made public, I most earnestly and respectfully request that a re-investigation be had at once, in which case the Government may appoint three commissioners and the State of California three others, all to have power to select a seventh member in case such commission be equally divided in opinion. The decision of such a commission would and should be regarded and treated by every one as decisive. If this most important but humble request be denied us, then we respectfully submit that before the commissioners' report be made public, and prior to taking any action thereon, the representatives of this State to be sent from here should be accorded a personal hearing in Washington to the end that undue alarm and consequent injury may be avoided. Whatever differences of opinion may at this time exist as to the existence or non-existence of plague, no one can honestly be of the opinion that the disease is epidemic in San Francisco, nor can anybody seriously contend that ample protective and preventive measures cannot be taken in the premises, without even spreading great or any alarm among the people and without disturbing our commercial affairs. I take pleasure in assuring you, notwithstanding anything that may have been said to the contrary, that California wishes to coöperate with the Federal authorities in this most important matter, having in view not only our own but the welfare of the whole people, and I implore you to afford our State an opportunity for such coöperation.

Your most obedient and humble servant,

HENRY T. GAGE,
Governor of California.

Telegram from Hon. Lyman J. Gage, U. S. Secretary of the Treasury, to the Governor.

WASHINGTON, D. C., February 19, 1901.

His Excellency the Governor of California:

Replying to your telegram of the 7th instant to the President, while the Department does not deem it necessary to join in a new commission as you propose, it is not its purpose to make public the report of the present commission till you are advised of its purport, and even then the matter will be very seriously considered before any action is taken. The Department is in accord with you in your desire to prevent unne-

essary alarm and to consider measures with the least possible publicity or disturbance of commercial affairs, and will pursue this policy both with regard to its commission in California and its action at this end. In other words, it will endeavor to prevent undue publicity and desires to if possible avoid publishing any report. The Department accepts with pleasure your suggestion to send a special representative of the State, believing he can familiarize himself with the situation here and trusting it will result in coöperation.

L. J. GAGE, Secretary.

Telegram of the Governor to the Secretary of the Treasury.

STATE CAPITOL, February 19, 1901.

HON. LYMAN J. GAGE, *Secretary of the Treasury, Washington, D. C.*:

Referring to your esteemed telegram of this date, in order that all questions might be completely disposed of without delay or further embarrassment, I would prefer, before any action be taken upon the report of Federal Special Commission by the Department, to personally present the matter to your Department, rather than through the medium of persons to be sent from this State as representatives; but it will be impossible for me to leave here before the latter part of March, owing to the present session of our Legislature.

Please inform me if such course would meet with approval of all concerned, and if action upon the report can be deferred.

HENRY T. GAGE,
Governor of the State of California.

Telegram from U. S. Surgeon-General Wyman to Dr. J. H. White of the U. S. Marine Hospital Service.

WASHINGTON, February 19, 1901.

DR. J. H. WHITE, *Occidental Hotel, San Francisco, Cal.*:

After seeing newspapers, as directed in my telegram of to-day, visit the Governor and convey to him the expressions contained in my telegram to you dated January 9, 1901. You are informed, as representative of Treasury Department in San Francisco, that the commission of experts have confined the diagnosis by bacteriological investigation, and the commission have been ordered to Sacramento, calling upon Governor and informing him alone thereof. You are to keep this strictly confidential. Trusting Department has accepted the Governor's suggestion to send special representative to Washington, where a consultation be held and arrangements made for coöperation. Your call upon the Governor will be with that end in view.

WYMAN.

Telegram of Senators Perkins and Bard to the Governor.

WASHINGTON, D. C., Feb'y 20th, 1901.

His Excellency HENRY T. GAGE, *Sacramento, Calif.:*

We suggest that in interest our State you use your influence prevent publication any reference to report so-called plague commission. If you will do this, Treasury Department will see that nothing given out here, and we may be able pass over this distressing affair without injuring name California at home and abroad. We merely offer this suggestion in interests our State.

GEORGE C. PERKINS.

THOS. R. BARD.

Telegram of the Governor to Senators Perkins and Bard.

SACRAMENTO, February 20, 1901.

To SENATOR GEORGE C. PERKINS, SENATOR THOS. R. BARD,*U. S. Senate, Washington, D. C.:*

I thank you for your suggestion.

HENRY T. GAGE.

Telegram of the Secretary of the Treasury to the Governor.

WASHINGTON, D. C., February 21, 1901.

His Excellency the Governor of California, Sacramento, Calif.:

Replying to your telegram of February 19th, the Department believes that in view of all the facts presented to you by its agents, you will coincide in the opinion that a delay of action until the latter part of March inadvisable, and the Department sincerely regrets your inability to immediately come or send a representative, but believes that its accredited agents have made plain that its wishes in the matter are in accord with your own, particularly in avoiding publicity, and the management offers with the least possible detriment to commercial interests and without causing unnecessary apprehension. Surgeon White has informed the Department of a recent interview with you and your wishes in the matter of Department service, concerning which the Department would be glad to hear from you further with a view to a favorable response.

L. J. GAGE, Secretary.

Telegram of the Governor to the Secretary of the Treasury.

SACRAMENTO, February 25, 1901.

To HON. LYMAN J. GAGE, Secretary of Treasury, Washington, D. C.:

In reply to your dispatch of date February 21, you are aware that a dispute originally arose between the Federal authorities and the State authorities in reference to health conditions of California; and whereas, since then, the Federal authorities have made investigations in which the State authorities were not allowed to participate; and whereas, the commissioners who prosecuted the investigations for the United States, under such circumstances, have concluded that the health conditions at San Francisco need certain attention; and whereas, heretofore I expressed my views in regard thereto by message to the Legislature of California; still, in view of all of the circumstances and conditions, believing that it will be for the best interest of all concerned, first having been assured by your office that your department would take the steps hereinafter referred to, if requested, and in the performance thereof would, among other things, be particular to avoid publicity, and that the management would be pursued with the least possible detriment to our commercial interests; and believing that, if the Federal authorities be given control in the premises, all other States of the Union may be better satisfied, and that all general quarantine of this State and of its cities will thereby be avoided, and that all quarantine of other States against this State may be avoided, and so forth, I therefore respectfully request the United States authorities to take charge of the matter within this State and deal with the situation from the standpoint of the report of its commissioners, but without cost or charge to this State, at the same time assuring you of my hearty coöperation.

I thank you for your courtesy, and await your reply.

HENRY T. GAGE,

Governor of the State of California.

Telegram of the Secretary of the Treasury to the Governor.

WASHINGTON, D. C., February 26, 1901.

His Excellency the Governor of California, Sacramento, Cal.:

Acknowledging receipt of your telegram of the twenty-fifth, the Department wishes to express its appreciation of your courteous attitude in the matter under consideration, and desires to submit to you the following suggestions, namely, that in the work to be performed, while all ordinary expenses incurred in the payment of its own officers may be met by the Department under the law and in accordance with usage, the chief burden should be borne by the City of San Francisco. The Mayor and other necessary local authorities should be notified, as were

you, with a view to an understanding as to this matter. No municipality has ever depended financially upon the Government under like circumstances, though there have been numerous parallel cases during epidemics of yellow fever. Even if the Department should be willing, contrary to its announced policy, the matter would have to be brought before Congress for an appropriation, which is now practically impossible, and would moreover give undue publicity. Surgeon White will be the agent of the Department, in charge of the whole situation, which, in view of the return of troops in the near future from the Philippines through San Francisco, will be doubly necessary. Please answer as to above suggestions.

L. J. GAGE, Secretary.

Telegram of Senators Perkins and Bard to the Governor.

WASHINGTON, D. C., February 26, 1901.

HON. HENRY T. GAGE, *Governor of California, Sacramento, Cal.:*

We have seen your dispatch of February 25th to the Secretary of the Treasury, and are gratified at your evident desire to bring about a coöperation between the National, State, and local authorities, but believe it will be a mistake to attempt to have Treasury Department bear all the expenses; surely San Francisco is able to raise the necessary funds. We fail to see how the Treasury Department can take any other position than it has taken, in view of the reports, for some time past, of its own officer, of a commission of university experts, which it will shortly dissolve, and in view of the reports which we learn it is receiving (three within the past month) from the official authorities of San Francisco. We earnestly advise, therefore, that the friendly coöperation which the Treasury Department is evidently endeavoring to bring about be helped along by yourself, and are convinced that such action on your part will receive general commendation.

GEO. C. PERKINS.

THOMAS R. BARD.

Telegram from the Governor to the Secretary of the Treasury.

STATE CAPITOL, February 27, 1901.

HON. LYMAN J. GAGE, *Secretary of the Treasury, Washington, D. C.:*

There has evidently been a misunderstanding between your Department and myself, otherwise you would have accepted the proposition contained in my last dispatch, which, I understood, conformed with the views of your Department. Now, to avoid all complications and delay

I have this day appointed four distinguished citizens of this State to personally confer with you on the subject of your suggestions. They leave the second instant, direct for Washington. I am confident that all matters will be satisfactorily arranged.

HENRY T. GAGE,
Governor.

Telegram of the Governor to Senators Perkins and Bard.

STATE CAPITOL, February 27, 1901.

SENATOR GEORGE C. PERKINS *and* SENATOR THOMAS R. BARD,
Washington, D. C.:

Have this day sent very important dispatch to Secretary Gage designed to cover points suggested by you.

Please confer with him.

HENRY T. GAGE.

Telegram of Senators Perkins and Bard to the Governor.

WASHINGTON, D. C., March 1, 1901.

HON. HENRY T. GAGE, *Governor of California, Sacramento, Cal.:*

Have read your last message to Secretary of Treasury, giving notice of the coming of committee of four distinguished citizens. Too late now, even if advisable, to secure special appropriation for expenses. The Department believes City of San Francisco should bear expenses and seems disposed to address Mayor with view of securing coöperation of the city, and failing in that effort we fear it will result injuriously to our State.

THOMAS R. BARD.
GEO. C. PERKINS.

Special Health Commissioners Appointed by the Governor.

March 1, 1901, the Governor appointed as special health commissioners of the State of California to consult and advise with Federal authorities at Washington, D. C., concerning health conditions of the State, and to report to the Governor, the following gentlemen: John P. Young, Henry T. Scott, T. T. Williams, and W. F. Herrin.

Also, on same day the Governor issued to Fremont Older a separate commission to represent the City of San Francisco and the State of California at Washington in conjunction with the above-named gentlemen.

**Letter from Dr. White, of the U. S. Marine Hospital Service, to
the Governor.**

SAN FRANCISCO, May 18, 1901.

*To His Excellency HENRY T. GAGE, Governor of the State of California,
Palace Hotel, San Francisco, California:*

SIR: I have the honor to invite your attention to certain facts in connection with the work now being done in Chinatown, and to request your consent to the plan which I propose and which I hope may be successful. Since the beginning of the investigation of sick and dead in Chinatown on April 8th, the apparent mortality among Chinese has dropped to 75 per cent or less, and in the total population there were only shown, from April 8th to 30th, inclusive, 65 sick persons, most of whom were suffering from such chronic diseases as consumption, cancer, etc. My inspectors have been shown only an exceedingly small number of acute diseases, and a number so small as to be ridiculously out of proportion, out of a population of 15,000 people, in which population there would be, according to all vital statistics, at least 100, and probably 150, sick from acute diseases at all times. This is against an actual showing by the Chinese Six Companies of three or four such cases. Take either horn of the dilemma you please, and grant for the sake of argument that they have shown all the actual dead (that number of dead during the month of April from the 8th amounting to 22), it is preposterously out of proportion and five times as great as it should be for 65 sick—fully as much out of proportion as the said 65 sick are out of proportion to the large population of the town. Pardon me if I have gone rather exhaustively into this matter, but I wish you to understand the situation fully in order that you may understand the request that I am making, which request is as follows:

That you authorize me through my agents to investigate sickness and deaths quietly in any other town or city in the State; this request being made because I feel assured that the sick are being sent out of the city whenever they present any appearance which might in any possibility be plague, or be mistaken for plague; and I know that it is needless for me to say to you that all of the very arduous and extensive work now being done in Chinatown will be absolutely of no avail if houses, after being cleaned, are going to be reinfected by being used as abiding places of infected persons. You can see that should the Chinese so desire, there is nothing to prevent them from taking a sick man from Chinatown to Oakland, or even to Sacramento, after night-

fall, or easily in the morning before operations in Chinatown by you and my people have begun. I beg that you will give this matter your earliest possible consideration.

Respectfully,

J. H. WHITE,
Surgeon M. H. S.

**Telegram of the Governor to Dr. White, U. S. Marine
Hospital Service.**

SACRAMENTO, May 28, 1901.

DR. J. H. WHITE, *Surgeon Marine Hospital Service,*
No. 420 California St., San Francisco, Cal.:

You will please take notice that the State authorities have not requested you nor any other officer of the Federal Government to investigate or participate in an examination of the health conditions of the State outside the limits of the City and County of San Francisco, and that the State Board of Health is complying in every respect with the conditions requested by the Federal authorities, and is fully carrying out the agreement with the U. S. Treasury Department.

I have always been ready and desirous of making the most searching investigation into the health conditions of San Francisco and other points within this State, but the investigation should be conducted on fair and honest lines by those representing the Federal Government and the State.

I decline to allow you to assume control of State health affairs, and pursue secret and hidden investigations. The State authorities are now and always have been abundantly able to look after the health concerns of the State without interference. Your mere suspicion from the improved health of the Chinese district that the sick are being removed from San Francisco, is not only unwarranted as a conclusion, but I know it to be unfounded in fact. I therefore decline to authorize your agents, whose responsibility to me is unknown, to do as you have proposed and requested. If there is any city, town, or district within this State where you yourself desire to make examination, let me know, and I will send some one suitably qualified professionally to look over the matter with you. But one-sided secret examinations, such as have been witnessed in San Francisco, to its great detriment, and to that of the State, will not be permitted elsewhere.

If you desire to have a conference with me at any opportune time, I will be pleased to comply with your wish, but communications by mail or telegraph are unsatisfactory.

HENRY T. GAGE,
Governor.

Telegram of Dr. White, U. S. Marine Hospital Service, to the Governor.

SAN FRANCISCO, June 7, 1901.

His Excellency the Governor of California, Los Angeles, Cal.:

In conference with Doctors Hill and Mathews, of the State Board, yesterday, and Messrs. Herrin and Williams, of your committee, I made some verbal propositions regarding the continuance [of the work in Chinatown which I wish to formally repeat to you. If, when the disinfection of Chinatown is finished, the State of California will grant the Service permission to continue the autopsies, the inspection of the sick, and the right to investigate cases and places within the State in its own way, and to properly disinfect all premises if cases should subsequently be found, I believe I can have the quarantine against California by Texas and Colorado raised; but without the right to carry on the above investigations, you can readily understand that it will be impossible for me to certify to the health authorities of these States that there is no danger of cases occurring, because all the avenues of infection have not been controlled. It is to be understood, of course, that these will be my personal recommendations to the bureau in Washington, and with them I should like to present your reply. Accordingly I should appreciate an answer by Sunday evening, as I contemplate an immediate trip to Washington.

J. H. WHITE,
Surgeon M. H. S.

Telegram of the Governor to Dr. White, U. S. Marine Hospital Service.

JUNE 10, 1901.

DR. J. H. WHITE, U. S. Marine Hospital Service, San Francisco, Cal.:

Your much appreciated dispatch of June 7th at hand. I have as yet received no report from you upon our joint work in San Francisco. After perusing that I will be most happy to go over the subjects embraced within your last message with a view to a most friendly adjustment of all the matters in which we are interested.

HENRY T. GAGE.

Telegram of Dr. White, of the U. S. Marine Hospital Service, to the Governor.

ROCKLIN, CALIF., June 10, 1901.

His Excellency GOVERNOR GAGE, Los Angeles, Calif.:

En route to Washington for conference, your telegram reaching me Sacramento. Contents much appreciated. Will report same with

great pleasure to Department. Feel I am expressing wishes of Service as well as my own in hoping for an amicable adjustment. Will wire fully all points from Washington.

J. H. WHITE,
Surgeon M. H. S.

Telegram from U. S. Surgeon-General Wyman to the Governor.

WASHINGTON, D. C., June 18, 1901.

His Excellency GOVERNOR GAGE, *Sacramento, Cal.:*

Doctor White has arrived, and reports work of cleansing and disinfecting Chinatown, San Francisco, nearly complete, and that he is satisfied the work has been done by your agents under his advice in full compliance with the understanding. A few unfit habitations remain to be condemned; that work is in progress by the San Francisco Supervisors, and all will be completed within a few days. It is a matter of mutual congratulation that no cases have been found during the progress of this work, and that the outlook is so encouraging. For our mutual protection and interests I believe it very essential that the supplementary work indicated in Doctor White's telegram to you of June 7 should follow, as it will cause continued satisfaction and prevent comment and criticism of both the State and Service, which would otherwise be likely to follow. The bureau here is able, by reason of its central position, to know the sentiments which prevail, and a quiet performance of the labors suggested by Doctor White is in many points advisable from every standpoint. I have read this telegram to the Secretary of the Treasury, who concides therewith, and if necessary will communicate with you himself. Will you kindly wire your views?

WALTER WYMAN,
Surgeon-General, M. H. S.

Letter of the Governor to U. S. Surgeon-General Wyman.

JUNE 24, 1901.

DR. WALTER WYMAN, *Surgeon-General M. H. S., Washington, D. C.*

SIR: I am much pleased to receive through yourself assurances that the agreements made by this State have been performed "in full compliance with the understanding," and likewise greatly value the statement, emanating from such high scientific authority as yourself (especially having before us the past grave blunders of others not having had your wide experience), that now it is certain and a matter of mutual congratulation "no case" (of plague) "has been found during the progress of this work," which result was by me at all times confidently expected.

The State authorities have made thorough and extraordinary investigations, and I am fully advised as to the health conditions of California,

and know there is no occasion at this time for the further investigation suggested by Dr. White, and am most happy to report that it will not be necessary for your Department to be further burdened.

However, if it is your pleasure, as a mere precautionary measure, to make further autopsies, or if there is any city, town, or district within this State which you, through your Department, desire to inspect, please be good enough to name such competent persons as you desire and I will most cheerfully send others qualified professionally and in every particular to coöperate and look over the situation with them, and thereby further your highly commendable purpose in that regard. But one-sided or secret examinations (not at all times participated in by the State), such as have, in the past, been witnessed in San Francisco, to its irreparable detriment and to that of the whole State, you can readily see, from the result of your own recent searching and valuable examination, should not, and can not, be again permitted.

I appreciate most deeply your kind offices and shall be glad to coöperate with you in future.

Respectfully yours,

HENRY T. GAGE.

**THE DISINFECTING, CLEANING, AND FUMIGATING OF
CHINATOWN, IN THE CITY AND COUNTY OF SAN
FRANCISCO, STATE OF CALIFORNIA, BY STATE BOARD
OF HEALTH.**

HEADQUARTERS OF STATE BOARD OF HEALTH,
ROOM NO. 11, FERRY BUILDING,
SAN FRANCISCO, August 27, 1901.

The work of disinfecting, fumigating, and cleaning of the district known as Chinatown, in the City and County of San Francisco, was commenced April 8, 1901, by the State Board of Health, under the supervision of the Marine Hospital Service of the United States, Dr. J. H. White in charge. The district known as Chinatown and mapped out by Dr. White consisted of the following seventeen blocks:

Block 132, bounded by Pacific and Jackson, Powell and Stockton streets;

Block 133, bounded by Jackson and Washington, Powell and Stockton streets;

Block 134, bounded by Washington and Clay, Powell and Stockton streets;

Block 135, bounded by Clay and Sacramento, Powell and Stockton streets;

Block 136, bounded by Sacramento and California, Powell and Stockton streets;

Block 110, bounded by Broadway and Pacific, Stockton and Dupont streets;

Block 111, bounded by Pacific and Jackson, Stockton and Dupont streets;

Block 112, bounded by Jackson and Washington, Stockton and Dupont streets;

Block 113, bounded by Washington and Clay, Stockton and Dupont streets;

Block 114, bounded by Clay and Sacramento, Stockton and Dupont streets;

Block 115, bounded by Sacramento and California, Stockton and Dupont streets;

Block 89, bounded by New Montgomery Avenue and Pacific, Dupont and Kearny streets;

Block 90, bounded by Pacific and Jackson, Dupont and Kearny streets;

Block 91, bounded by Jackson and Washington, Dupont and Kearny streets;

Block 92, bounded by Washington and Clay, Dupont and Brenham Place;

Block 93, bounded by Clay and Sacramento, Dupont and Kearny streets;

Block 94, bounded by Sacramento and California, Dupont and Kearny streets.

The blocks on the west side of Stockton Street were not cleaned in their entirety; only portions of said blocks are occupied by Chinese, and in no instance was it necessary to invade the premises on the Powell Street boundary.

On April 4th, the following communication was received at this office from Dr. J. H. White, viz: "The work of disinfecting, fumigating, and cleaning the district known as Chinatown will commence at the southeast corner of Stockton and Pacific streets, and follow a southeasterly course on account of the prevailing winds."

The State Board of Health was prepared to begin work on April 5th, when Dr. White made a request for postponement until April 8th. At 9 o'clock on the morning of April 8, 1901, we commenced work with a force of forty-three men on block 111, beginning on the corner of Stockton and Pacific streets, as per instructions of Dr. White. Under the instructions of the Marine Hospital people we requested the Chinese to clean their premises preparatory to having them fumigated by means of the following process: "All rooms to be fumigated with five per cent sulphur dioxide for forty hours, with all contents in place. This to be followed by all textiles to be subjected to a steam disinfection for twenty minutes in a temperature of 215° Fahr. All goods that could not be disinfected by steam to be soaked in bichloride of mercury solu-

tion, 1 to 1000, or in five per cent carbolic acid solution. All other things that do not come under these clauses and incapable of disinfection, such as foodstuffs, were to be carried to the crematory and burned."

These orders were countermanded and the following plan was substituted, viz : The floors and walls waist high in the rooms in the various premises to be washed and scrubbed with a saturated lye solution 1 pound to a 4-gallon bucket of water, and the remaining portion of the walls and ceiling to be sprayed with a 1 to 800 solution of bichloride of mercury. We were obliged to pursue this plan in all storerooms until such time that it was found to be of such character of work that it would be impossible to complete the large storerooms and warehouses short of seven or eight months. By request and after consultation with Dr. White we were permitted to fumigate those storerooms which contained goods that were not damagable by means of sulphur process of fumigating. In those storerooms and warehouses which contained goods which were easily damaged we were permitted to use a formaldehyde gas.

The men were divided into squads of five each, one of said squad being known as the captain or foreman. These squads were in charge of physicians employed by the State Board of Health, who gave instructions as to the work to be performed and saw that it was properly done. After a building was cleaned with the lye solution the physician in charge of the squad performing the work in said building would report the same to one of the physicians acting as inspector on the staff of Dr. White, and he in turn would inspect said building and mark it ready for spraying. The building then would be taken in charge by the spraying squad, whose duty it was to spray the walls and ceilings with a bichloride of mercury solution, 1 to 800. After this character of work was completed the building was again inspected by the State Board of Health inspectors, and by them reported to the inspectors on the Federal staff, who in turn inspected the building and approved the work by marking upon each door of the rooms of the building "O. K." and "Bich.," which meant that the rooms and building had been cleaned, fumigated, and disinfected to the satisfaction of the physician acting as inspector on the staff of Dr. White.

This character of work was carried on until all of the 1,185 buildings in the district were completed; in all 16,888 rooms were cleaned, disinfected, and fumigated, besides numerous hallways, stairways, sinks, yards, basements, sub-basements, water-closets, and roofs. Dirt and filth from these buildings were carried to the street and alleyways, where it was covered with quicklime by a force of men employed by the State, after which it was carted off to the crematory, and burned; in all 1,511 loads of this garbage, or 4,533 cubic yards. The carting and burning of this material were done by the City Board of Health at the expense of the city.

All the dark rooms, alleyways, and stairways were subjected to a coat of whitewash by a squad of men working under instructions of our inspector and at the expense of the State Board. In conjunction with the above, a plumbing inspector was employed, who made a thorough investigation of all the plumbing in the buildings in the district, and where defective plumbing was found notice was served upon the owners or their representatives, and with few exceptions the necessary repairs were made to the satisfaction of our plumbing inspector.

At this point we desire to note that the following plumbing fixtures and materials were used to place the plumbing in a sanitary condition:

- 97 new water-closets were put in.
- 186 new galvanized sinks.
- 46 automatic flush tanks.
- 36 new porcelain urinals.
- 28 slop-hoppers.
- 37 new iron and lead traps.
- 1600 feet cast-iron sewer pipe.
- 27 feet galvanized vent pipe.
- 1200 feet galvanized water pipe.
- 137 water-closets were repaired.
- 48 sinks were repaired.
- 81 slop-hoppers were repaired.

During the work a request came from Dr. White asking that a squad of men be formed, to be known as the "flying squadron." This squad was organized and put in charge of one of the State physicians. The duty of this "flying squadron" was to clean and fumigate the buildings in which alleged cases of bubonic plague had existed; this squad cleaned in all some 34 buildings. The average number of men employed daily on all the work ranged from 135 to 150. The number of physicians employed as inspectors was 6.

A doubt having arisen in the minds of Dr. White and his staff as to the number of sick Chinese reported in the Chinese quarters, a corps of five physicians was employed by the State Board to make a house-to-house canvass in the district known as Chinatown, and to ascertain the truth of this doubt. These physicians made a daily report of the work performed by them, and also a report of the Chinese whom they found sick, giving a history of the case and their diagnosis of the disease. These reports were made in duplicate, one being placed on file in this office, and the duplicate sent to the office of Dr. White. Each block in the district was covered by our physicians eight different times, and in all of the seventeen blocks only 307 sick cases were reported to this office. Few cases of acute sickness were found, most of the cases being of a chronic character, the majority of whom were suffering from pulmonary tuberculosis.

Herewith is a statement of the deaths among the Chinese and Japanese of this city since 1897, as tabulated by the statistician of the City Board of Health:

Fiscal Year.	Estimated Population.	Male.	Female.	Total.
1897-98 -----	18,000	397	57	454
1898-99 -----	18,000	453	53	506
1899-1900 -----	18,000	454	72	526
July, 1900, to Dec., 1900, inclusive -----	18,000			214
Jan., 1901, to April 30, 1901, inclusive. -----				151

A census, taken by the State Board of Health, as to the number living in the district known as Chinatown, amounted to 14,281 men, women, and children.

A morgue was established by the Marine Hospital people at 638 Merchant Street, in the quarters formerly used as the City Morgue. Any Chinese man, woman, or child dying in the City and County of San Francisco was, by the order of Dr. White and his associates, immediately removed to this morgue and treated as a case of bubonic plague until the autopsy proved the contrary. The morgue and laboratory of the Federal authorities were conducted by Drs. Flint, M. White, and Ryfkogle. Dr. Flint performed all autopsies, and under an order issued by the City Board of Health of San Francisco, no Chinese person dying in the City and County of San Francisco could be buried until a certificate of death was countersigned by one of the above named gentlemen, showing that the case was not one of bubonic plague. The morgue and laboratory at the present time are under the direct charge of Drs. Blue, White, and Currie. At all the autopsies the State has been represented by one or more physicians, and no autopsy has been held without a representative from this Board. Specimens were removed from the bodies of those autopsied for the purpose of making bacteriological investigations. The State has as its bacteriologist Dr. S. M. Mouser, who conducts a very thorough and complete investigation in all cases which are considered in any way suspicious.

The hours for holding the autopsies were arranged for 10 A. M. and 3 P. M. daily. From April 8th to August 19th, 98 autopsies have been performed. Many of these cases were looked upon as very suspicious by the physicians employed by the Marine Hospital Service; but at all times the State Board, through its representatives, has never found a case which could be pronounced as one of bubonic plague, and the report of the State Board's bacteriologist shows the result of a complete investigation.

The following cases have been selected as the ones which were looked upon as suspicious by the physicians in the employ of the Marine Hospital Service:

Woo Poy Wing, 822 Clay Street, male, 32 years old, laborer, died at above number on the 7th of April. This case was seen by Dr. Lawlor on the 17th of March, and he obtained a history of pulmonary tuberculosis of over one year's standing. Autopsy made by Dr. Flint

revealed the following facts: Glandular system, submaxillary (anterior and posterior), cervica, supra clavicular, right axillary, all negative. Left axillary, found one gland enlarged to the size of almond. The right inguinal glands just felt. The left inguinal just felt. The peritoneal cavity was filled with a cloudy, straw-colored exudate, which contained numerous flocculi. A remark was made at this point that this was very characteristic in plague, and that it was hardly necessary to go on further with the autopsy. At the suggestion of the State's representative, the autopsy was completed, with these findings, viz.: Anatomical diagnosis: Pulmonary tuberculosis, acute peritonitis, tumor of cæcum, intestinal perforation, and arterio sclerosis. Bacteriological diagnosis, negative. Had it not been for the demand on the part of the State's representative at the autopsy this would probably have been reported as a case of plague.

Mark Owau Wing, alias Mae Quon, 755 Jackson Street, male, 35 years old, laborer, died April 27th. This case was seen two days before death, and the cause of illness was given as spitting of blood. From a history of the case, a diagnosis of pulmonary tuberculosis was made. Anatomical diagnosis: Pulmonary tuberculosis; cholelithiasis; acute parenchymatous degeneration of the kidneys. Bacteriological diagnosis: By the Federal people, distinctly bipolar stained bacilli; by the State authorities, the bacteriological examination showed a negative result.

This was the case which they endeavored to make out as one of plague, and had it not been for the firm stand taken by our physicians there is no question but that this would have terminated as a pronounced case of bubonic plague. At the autopsy Dr. Flint made no statement concerning plague until he removed one enlarged gland from the right axilla. The right lung was removed and found to be tubercular. Dr. Flint then endeavored to remove the left lung, but found it so firmly adhered and diseased that it was impossible to remove it through the abdominal opening, and he stated that he did not desire to mutilate the body by making an opening in the chest walls. He further stated that this was a case of pulmonary tuberculosis, and with this diagnosis the State's representative felt satisfied and left the morgue. Later on in the afternoon Dr. Flint was found going through Chinatown in company with a police officer to the building in which the deceased Chinaman had resided at 735 Jackson Street. The room which he occupied was sealed and locked, but no quarantine was placed on the building. Dr. White immediately made a request that the room be fumigated, which was complied with. That evening the State's representatives demanded that the order given by the Federal people to quicklime the body for burial be countermanded, and a further and more complete autopsy be performed. Our request to non-quicklime the body was granted, as well as postponement of time of burial. The following morning Dr. Flint was interviewed and requested to explain his position

in this case. He stated that he desired to await the result of a bacteriological investigation before giving an anatomical diagnosis. He said that if the State desired to make a more complete autopsy they could do so, he would not, but finally admitted that both lungs were completely destroyed by tuberculosis, and the left lung to such an extent that it was impossible to remove it. No further autopsy was insisted on after this admission. We learned that they had inoculated a guinea pig, but the guinea refused to succumb to their bacilli. The result was that they finally admitted that no evidence of plague had developed from their bacteriological examination, although they were positive in the beginning that they had found bipolar stained bacilli. The bacteriological investigation made by the State's physicians on the above case gave a negative result.

Mrs. Augusta Feller, white, female, died at the City and County Hospital on April 24th. Anatomical diagnosis: General acute peritonitis; hypostatic congestion of lungs; cloudy swelling of the liver, kidneys, and heart; chronic fibroid myocarditis. Bacteriological diagnosis: By the Federal people, bipolar stained bacilli, plague; by the State's authorities, pneumococci.

This was, in the opinion of Dr. Flint, a typical case of plague. This woman resided with her family at 140 Berlin Street, and was taken sick on April 15th, while nursing her husband, who was suffering from traumatic pneumonia, the cause of which was a fractured rib produced by the kick of a cow; and on April 19th, on account of the distressed financial circumstances of the family, she was removed to the City and County Hospital and placed under the care of Dr. Charles Rosenthal until the time of her death, and was attended by Dr. Alfred McLaughlin before her removal to the hospital. From Dr. Rosenthal the State received the information that this was a case of acute peritonitis, with double lobular pneumonia, and he signed the death certificate, giving the above-named diseases as the cause of death. Dr. Pillsbury, who made the autopsy in this case, could not verify the statement of Drs. Flint, Ryfkogle, Kellogg, and others, who claimed that they found plague bacilli. Drs. B. F. Williams and Doddsworth, internes at the City and County Hospital, were present at the autopsy. On the findings of Drs. Flint and others, the ward at the hospital in which the woman died was quarantined pending a more complete bacteriological examination on the part of Dr. Flint and his associates. These physicians were so positive regarding their diagnosis in this case that they went out to the residence of the deceased woman with the intention of taking some of the blood of the sick husband for examination and to Haffkine the children. Upon their arrival at the house, and after getting a history of the husband's illness and injuries, they failed to carry on any further investigation, or to Haffkine the children. They inoculated a guinea pig with specimens removed from the body of the deceased woman, but the

result proved negative. After holding off a bacteriological examination for a week or more, they finally admitted that they had been mistaken, and countersigned the certificate of death, giving as a cause of death acute peritonitis with lobular pneumonia, and ordered the quarantine raised on the ward. The State's representatives had informed the Federal people and their associates that they could give them a complete history of this woman's case from the date of her very recent confinement when she gave birth to a child, up to and including the time of her death, and that they were positive as to their position that this was not a case of bubonic plague. The Federal people and their associates ordered this body quicklimed for burial, yet they permitted a public funeral from an undertaking establishment in the Mission and published the date and hour of the funeral in the daily papers.

Lee Yick Wau, 622 Jackson Street, male, laundryman, 42 years old, suddenly died April 27th. This case was not seen before death, but an investigation before the autopsy was performed revealed the fact that the man had died from the effects of an overdose of Chinese medicine. Dr. Flint stated, before the autopsy began, that this certainly was one of the supposed hidden cases of plague, so often mentioned. At the request of the State's representatives, a complete autopsy was made of the stomach and intestines, and when no cause was found to account for the acute pathological changes in the stomach and intestines, the State's representatives gave the cause as above mentioned, and thus another case was proven to be based on fallacy. Anatomical diagnosis: Acute gastro-enteritis; phthisis; chololithiasis; chronic pleurisy and chronic interstitial nephritis. Bacteriological diagnosis, negative.

Wong Do Gap, 828 Sacramento Street, male, age 40, died May 13th at the Oriental Dispensary. This case was seen many times clinically for more than one month, and a diagnosis of tubercular adenitis was made. Anatomical diagnosis: Acute hemorrhagic gastro-intero colitis, caused by chewing and swallowing Dr. Flint's clinical thermometer; chronic nephritis; edema of the lungs; cervical tubercular adenitis of the glands of the left axilla. Bacteriological diagnosis: Federal people found bipolar stained bacilli, and inoculated a guinea pig; result proved negative.

Lei Lum or Gee Mon Sui, 625 Dupont Street, age 43, laundryman. Autopsied at Public Morgue, July 7th. Spleen examined by Federal doctors on same day, and pronounced suspicious of plague. This case was reported July 1st, and seen clinically. A diagnosis of pulmonary tuberculosis and stenosis of trachea made. Obstruction in trachea was due to a cicatrix resulting from a cut in throat with suicidal intent. Patient committed suicide on the 6th, and was examined as above stated. Cultures and inoculations proved bipolar stained bacilli to be diplococci.

Mon Lung, 4 Clay Avenue, child, age four months. This case was treated at the Presbyterian Mission by Dr. Minnie Worley for more

than two weeks for pneumonia. Autopsy revealed bipolar stained organisms in smears from spleen. These appeared to State's representative to be streptococci, not bacilli as claimed by Federal doctors. Cultures and inoculations proved organisms to be streptococci and the cause of pneumonia.

To the Honorable Board of Health of the State of California:

The undersigned begs to report that on July 6, 1901, he was present at an autopsy of a Chinaman named Lee Ah Wa (?), made by employes of the U. S. Marine Hospital Service, and has since made cultures and inoculations with tissues from the body of said Chinaman, making the usual bacteriological investigations, which led him to the conclusion that said Chinaman died of septicemia hemorrhagica, and not of bubonic plague.

Respectfully submitted,

S. M. MOUSER.

SAN FRANCISCO, July 16, 1901.

Case 64, known as "Saina," a Japanese diva, of 845 Washington Street. This was the second body autopsied on July 9th; the first being that of "Moiyo," also from the same place. This case was reported by Dr. Blue at 10 p. m. on July 8th as very suspicious of bubonic plague. Drs. Lawlor and Stone visited the case about midnight on the same day, and found the patient suffering with a fever ranging from 101° to 102° , moderately rapid pulse and breathing, and enlarged inguinal femoral glands on both sides. The glands were about the size of an almond not hulled, surrounded by a slight periglandular edema, and tender upon pressure. The skin over glands on right side showed a well-defined puncture mark, which had been made by Dr. Ryfkogel for the said purpose of withdrawing blood from glands for bacteriological examination. The history of the case previous to visit of Drs. Lawlor and Stone is this: The patient became sick the latter part of June. Dr. M. Regensberger was called in to treat the case. He made the diagnosis of typhoid fever and gave treatment for same, but since the patient did not show signs of improvement under this treatment Drs. Carpenter and Evans were called in consultation. Both of these doctors heard murmurs over area of heart, but were not satisfied as to their diagnosis, and therefore a third consultation in the form of a bacteriologist, Dr. Ryfkogel, was called in, who at once pronounced the case bubonic plague, and then made the puncture above mentioned to confirm his diagnosis. The post mortem showed the following: A chancre on the right side of vulva, the inguinal femoral groups of glands enlarged and surrounded by a non-hemorrhagic periglandular edema. Some of the glands ready to break down by fibrinous necrosis. Smears made from the glands showed the bipolar stained organism only to be present in set of glands on right side where the puncture had been made. The smears made from glands on left side were negative. From the cut surfaces of tumefaction about glands a serous exudate flowed, or rather oozed. The peritoneum, intestines, mesentery and its glands, stomach, and kidneys were found to be

normal, not even injected nor hemorrhagic. The spleen was about double its size, soft, pulp structureless, and upon capsule being cut flowed out. Smears made of spleen did not show bipolar stained organisms. The heart did not show any lesions, not even thickening of valves, although a few atheromatous plaques faintly showed in aorta, this proving that the consulting doctors who heard murmurs as stated above were mistaken. The lower lobes of both lungs were greatly congested, and upon being cut a serous, sanguinous, frothy exudate flowed from same. It should be added here that smears were made from this exudate of lungs, from the heart's blood, and from the mesenteric glands, but none of these smears showed bipolar stained organisms; this proving clearly that the organisms found in the right group inguinal femoral glands were not found in blood of subject. This is in direct contradiction to findings of bacilli in suspected plague cases elsewhere; the spleen being the organ where the bacilli are found most abundantly, and if at all present, are found in this organ. This is in accordance with the ideas of the Federal doctors, because frequently no other organ in a case is examined.

Cases 63 and 68 were similar in every respect to above cases.

To the Honorable State Board of Health of the State of California:

The undersigned begs to report that at the request of your Honorable Board he has made a thorough bacteriological investigation of three Japanese women who died at 845 Washington Street, and has arrived at the conclusion hereinafter stated:

These women were named, respectively, Miss Moiyo (No. 63 of autopsies made since April 4th by medical men connected with the U. S. Marine Hospital Service), Miss Saina (No. 64), and Miss M. Kawamura (No. 68). These women were all inmates of a house of prostitution, and were similarly situated as to their habits and mode of life. The post mortem appearances were in many respects similar, except that in case 68 there were marked evidences of syphilis, copper-colored spots appearing on the skin of nearly all parts of the body. There was in each case some enlargement of the inguino-femoral glands, but in no case was the gland broken down or in a state of suppuration. There were no marked changes in the axillary or cervical glands.

In cases 64 and 68 there was a little enlargement of some of the mesenteric glands. In each case the spleen was somewhat enlarged and friable. In all three cases were found short, rather thick micro-organisms, staining more deeply at the ends than in the middle. Guinea pigs inoculated with portions of tissue from these dead bodies invariably died in a few days with every evidence of septicemia hemorrhagica. In all these cases the organisms were obtained in pure culture and inoculated into half-grown guinea pigs, not one of which died nor showed evidence of disease. While the organism found in these cases resembles somewhat that of plague, it equally resembles so many other bacteria that we should hesitate to pronounce on it from its morphology alone. For instance, chicken cholera, swine plague, the plague of deer and other wild animals, septicemia hemorrhagica, etc.

Where the greatest bacteriologists in the world differ in opinion on the identity of the organisms above named, should we not hesitate to pronounce hastily and positively by the morphology alone without taking into consideration the clinical aspect of these cases and all other evidence that can be obtained? Returning to the morphology of the organism found in the cases, it will be proper for the writer to state that he has, while investigating these cases, found an organism identical with the one found in the dead subject in every particular. Not only in its morphology, but the culture and reactions are the same throughout. This was obtained in some water from a small lake which was being examined. Since, in examining some urine, he found what is morphologically its prototype. From this last it was convenient to obtain cultures.

Clinically we have no evidence of the existence of plague. In the first place, there has been no unusual amount of sickness in the Chinese quarter or in the city. Secondly, with the exception of the three cases under consideration, and perhaps two others, there have not been two cases of suspects found in one house, nor in the immediate vicinity. This has not been the case in other places where plague has prevailed.

In view of all the facts he has been able to gather he does not hesitate to say he is satisfied that the above mentioned were all cases of septicemia hemorrhagica, and not bubonic plague.

Case 69, a Chinese girl, fifty days old, was submitted to the undersigned for investigation, but as the micro-organism above described was not found, no further investigation was made.

Respectfully submitted,

S. M. MOUSER, M.D.

SAN FRANCISCO, August, 1901.

Wong Chou, 24 Waverly Place, age 32; occupation, Chinese doctor. Autopsied August 20, 1901. This case was not seen clinically by the State's representatives before death. Dr. M. White, of the Marine Hospital Service, was notified of the sickness of the above Chinaman by Wong Chung, the interpreter for the Marine Hospital physicians, whereupon Dr. White made a visit to the above place and saw the case clinically one half hour before death. After visiting the case, he immediately notified the physicians representing the State that he had a very suspicious case and one which showed clinically all the evidences and symptoms of a true case of bubonic plague. He was so positive of proving his clinical diagnosis to the satisfaction of the other physicians, that when the case was visited by Drs. Blue and Currie, of the Marine Hospital Service, and Drs. Lawlor, Stone, and Bothe, representing the State Board of Health, with Dr. White, the said Dr. White carried with him to the residence of the said Chinese a quantity of Yersin serum for the purpose of using it on the sick Chinaman. Upon arriving at the residence of the Chinaman, much to the surprise of Dr. White and his associates, they found that the said Wong Chou had departed to the "Great Unknown." The case was immediately removed to the morgue, where an autopsy was made by Dr. White in the presence of the above named physicians and representatives from the City Board of Health. The autopsy revealed the following facts: The peritoneum was not injected and the abdominal cavity contained no fluid. Mesentery glands were not enlarged. The spleen was enlarged to more than double its size, of a dark chocolate color. The stomach was normal, but contained about one pint of Chinese medicine, which had an odor of chloral. The lower lobes of the lungs were congested, but contained no tubercles. The heart contained a large ante-mortem clot. The glands in the left inguinal region were slightly enlarged, and over this region the Chinaman had a large plaster of Chinese ointment. On making an incision over the course of the spermatic cord a large quantity of pus exuded; upon further examination a large abscess on the left testicle was found. This no doubt was the cause of the swelling in the region of the left inguinal gland. Smears from the pus showed the infecting organism to be streptococcus. The smears taken from

other organs of the body showed that they contained the same organism. Death was due to the streptococci infection, with an acute splenic tumor, and to an overdose of Chinese medicine. Dr. White and his associates seemed to be very much disappointed in a failure to prove their clinical diagnosis of bubonic plague.

TO SUMMARIZE.

The State has scrubbed an area equal to 525 acres, and in addition thereto, fumigated about 30,000,000 cubic feet of dwelling apartments.

Have seen 307 sick cases and autopsied 103 cases.

Total cost to date, \$37,518.

Number of days cleansing Chinatown, and visiting the sick, 142.

During all of which time we have not observed a single case of bubonic plague.

OFFICE OF
CALIFORNIA STATE BOARD OF HEALTH,
SACRAMENTO.

To His Excellency HON. HENRY T. GAGE, Governor of California:

SIR: On March 31st, 1901, as executive officer of the State Board of Health, I was authorized and directed by you to incur the necessary expense to render the Chinese quarter of San Francisco thoroughly sanitary and, incidentally, to eradicate any contagious disease found to exist there. The report of the operations entered upon and carried out by virtue of this order is herewith submitted. At the beginning of this work the Federal authorities who co-operated with us were of the opinion, based upon reports of others more or less trustworthy, that bubonic plague was prevalent among the Chinese of that city, and that it would be readily found as soon as proper investigation was had. During this period of fumigation, disinfecting, and cleansing no effort was omitted on our part nor on the part of the Marine Hospital representatives to locate and identify the presence of plague.

At the conclusion of the work, as thorough and searching as it could possibly be made, no case of bubonic plague was found, nor was any indication of its having been there discovered. If plague had existed in San Francisco just prior to this sanitary investigation, it would have been there during the months of April, May, and June, because no efforts had been made to suppress it and no precautions taken to prevent its spread.

It is safe, therefore, to say that the evil reports of the presence of that disease in San Francisco were based upon error in diagnosis upon the part of incompetent investigators. We take great pleasure in assuring you that plague does not exist in San Francisco, and that it never has had lodgment there, nor elsewhere in California.

CALIFORNIA STATE BOARD OF HEALTH.
By W. P. MATHEWS, Secretary.

SEVENTEENTH BIENNIAL REPORT

OF THE

STATE BOARD OF HEALTH

OF

CALIFORNIA,

FOR THE

FISCAL YEARS FROM JUNE 30, 1900, TO JUNE 30, 1902.



SACRAMENTO:

W. W. SHANNON, : : : : SUPERINTENDENT STATE PRINTING.
1903.

MEMBERS OF THE BOARD.

R. W. HILL, M.D., <i>President</i> ,	-	-	-	-	-	Los Angeles
W. P. MATHEWS, M.D., <i>Secretary</i> ,	-	-	-	-	-	Sacramento
WINSLOW ANDERSON, M.D.,	-	-	-	-	-	San Francisco
WALTER B. COFFEY, M.D.,	-	-	-	-	-	San Francisco
C. A. RUGGLES, M.D.,	-	-	-	-	-	Stockton
C. L. GREGORY, M.D.,	-	-	-	-	-	Yreka
FRANK G. FAY, M.D.,	-	-	-	-	-	Sacramento

REPORT OF THE BOARD.

CALIFORNIA STATE BOARD OF HEALTH,
SACRAMENTO, December, 1902.

To His Excellency HENRY T. GAGE, Governor of California:

SIR: The Seventeenth Biennial Report of the State Board of Health is, in obedience to law, hereby submitted to you.

The public institutions of the State have received, during the last biennial period, frequent visits from members of this Board, and the various buildings and grounds were subjected to careful sanitary inspection. The limited space allowed for the publication of this report makes it impracticable to render a detailed account of said visits; therefore, it may be said, generally speaking, that all the State institutions are conducted with extreme care for the health of the inmates. Overcrowding is the most common cause of complaint, but much of this has been remedied, especially in the State Hospitals, during your administration. Additional buildings, however, are still needed to meet the growing demand for accommodations in some of these institutions, especially at the Home for Feeble-Minded Children, and in one or two of the State Hospitals for the Insane. If the forthcoming Legislature, through committees, will inquire into these conditions there can be no doubt that the necessary relief will be provided.

The general health of the people of the State is good. With the exception of smallpox, in a modified form, we have been exempt from epidemics of contagious diseases. The statistics of the mortality in populous centers, from which our data are mainly taken, show a decreased ratio of deaths per 1,000. During the first six calendar months of the year 1900, 3,572 deaths were reported to this office from San Francisco. During the last six calendar months of the year 1901, 3,240 deaths were reported, or 16.5 per thousand for the first mentioned period, and 14.5 per thousand for the last mentioned period, notwithstanding an increased population during the later months.

It should be noted that the duty of ascertaining and reporting the prevalence of contagious diseases and the number of deaths in incorporated cities and towns rests solely with the local health authorities, whose further duty it is to report monthly to the State Board of Health. Whatever is lacking in completeness in the health record herein submitted is, therefore, chargeable to local health authorities, who,

in great measure, persistently neglect to report to this Board. It is to be hoped that the Legislature will devise some means whereby local health boards and health officers may be compelled to report at stated periods to the State Board of Health. Unless some legislation in that direction is had, incomplete and, to a great extent, valueless statistics will continue to be tabulated.

Recurring to the general health of the State, the only exception to the most favorable condition has been the prevalence of smallpox in many counties. While that disease has not caused a single death during the last year, so far as we have been informed, it has given much trouble and anxiety in the communities where it has prevailed. The extraordinary mildness of the disease has made it difficult to maintain quarantine. When called upon by local health authorities, the State Board invariably responded and rendered such aid in suppressing the disease as our means permitted. Whatever we have been enabled to do in this and in all other sanitary precautions for the preservation of the public health has been due to your enlightened view of this important State function. By your coöperation, without interference, the efficiency of this Board has been greatly augmented.

To preserve the health of the people without undue hindrance of their domestic affairs or of their business interests is always a serious problem, but we think we may safely say it has been fully met during our incumbency as a part of your administration. Thanking you, Governor, for your uniform kindness and courtesy to us, individually and as a body, we have the honor to subscribe ourselves,

Very respectfully yours,

R. W. HILL, M.D., President.

W. P. MATHEWS, M.D., Secretary.

C. A. RUGGLES, M.D.

WINSLOW ANDERSON, M.D.

W. B. COFFEY, M.D.

C. L. GREGORY, M.D.

F. G. FAY, M.D.

STATEMENT

Showing Condition of Appropriation for Traveling, etc., State Board of Health, for the Fifty-second Fiscal Year.

CR.

By amount appropriated.....\$1,500 00

DR.—To Warrants.

No.	Date.	In Whose Favor Drawn.	Amount.
	1900.		
39	July 20	State Board of Health	\$18 50
40	20	" " " "	21 50
43	31	" " " "	38 90
97	Aug. 2	" " " "	23 00
31	17	" " " "	28 10
92	23	" " " "	95 15
45	27	" " " "	17 60
56	Sept. 4	" " " "	109 75
57	4	" " " "	88 30
58	4	" " " "	19 50
59	4	" " " "	107 30
91	Oct. 16	" " " "	23 80
33	31	" " " "	23 07
34	31	" " " "	48 10
60	Nov. 22	" " " "	40 00
91	23	" " " "	16 00
43	24	" " " "	46 75
49	Dec. 1	" " " "	14 60
18	8	" " " "	19 05
31	11	" " " "	21 50
32	14	" " " "	119 75
99	29	" " " "	31 70
	1901.		
34	Jan. 7	" " " "	48 80
34	15	" " " "	23 40
91	Feb. 8	" " " "	11 40
92	8	" " " "	36 10
93	8	" " " "	16 65
77	Mar. 30	" " " "	25 00
25	April 23	" " " "	9 85
91	May 3	" " " "	17 35
01	8	" " " "	24 32
57	June 17	" " " "	65 65
58	17	" " " "	13 95
87	22	" " " "	60 50
88	22	" " " "	12 70
49	25	" " " "	66 50
18	29	" " " "	60 00
87	July 26	" " " "	16 00
		To balance	19 91
			\$1,500 00

STATEMENT

Showing Condition of Appropriation for Traveling, etc., State Board of Health, for the Fifty-third Fiscal Year.

CR.

By amount appropriated.....\$1,500 00

DR.—To Warrants.

No.	Date.	In Whose Favor Drawn.	Amount.
	1901.		
1283	Aug. 6	State Board of Health.....	\$82 34
1393	10	" " " ".....	76 70
1480	19	" " " ".....	94 60
1708	23	" " " ".....	80 10
2169	Sept. 4	" " " ".....	68 44
3225	Oct. 8	" " " ".....	25 88
4334	Nov. 11	" " " ".....	392 04
5328	Dec. 7	" " " ".....	113 50
	1902.		
6977	Jan. 31	" " " ".....	110 90
8842	April 8	" " " ".....	193 00
9259	23	" " " ".....	102 10
9978	May 15	" " " ".....	56 34
10693	June 4	" " " ".....	36 10
296	July 19	" " " ".....	41 00
1283	Aug. 18	" " " ".....	15 00
		To balance.....	6 9
			\$1,500 00

Reports from 23 cities, towns, villages and sanitary districts, aggregating a population of 698,748, show a mortality of 873—a death-rate of 1.24 per thousand for July, 1900, or 14.88 per thousand per annum.

There were 120 deaths from consumption, 23 from pneumonia, 12 from bronchitis, 1 from congestion of the lungs, 15 from diarrhoea and dysentery, 5 from cholera infantum, 7 from other diseases of the stomach and bowels, 8 from diphtheria, 1 from croup, 2 from scarlatina, 5 from measles, 3 from smallpox, 9 from whooping-cough, 4 from malarial fever, 16 from typhoid fever, 16 from cerebro-spinal fever, 6 from cancer, 57 from heart diseases, 11 from alcoholism.

Reports from sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during July, 1900.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhoea and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho- Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro - Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Alameda	16,000	16	2	--	--	--	--	--	1	--	--	--	--	2	--	--	2	--	--	--	--	2	--	9
Amador County	850	10	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5	--
Anaheim and vicinity	5,000	2	1	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Downey and vicinity	2,500	2	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Eureka and vicinity	10,000	10	3	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fresno	12,000	16	3	2	--	1	1	--	4	--	--	--	--	--	--	--	--	--	--	--	--	--	1	6
Lincoln	1,200	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4
Los Angeles	103,000	166	22	7	2	4	4	1	--	2	--	--	--	--	--	5	--	--	3	--	--	1	4	103
Napa	4,500	7	2	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	3
Oakland	75,000	78	9	5	2	1	1	--	--	2	--	--	--	--	--	--	--	--	3	--	--	13	4	52
South Pasadena and vicinity	10,000	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pomona and vicinity	7,500	1	4	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pleasanton	10,000	2	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redlands and vicinity	3,500	27	3	3	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sacramento	30,000	6	2	1	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2	--	--	--	16
San Bernardino	10,000	6	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
San Francisco	360,000	484	57	4	8	8	8	2	--	3	--	2	5	1	9	3	7	10	--	2	--	32	5	328
San Luis Obispo	6,000	10	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8
Santa Barbara	6,700	8	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3
Santa Cruz	5,594	9	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	1	--	1	1	5
Santa Monica	3,500	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Santa Rosa	10,000	4	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Vallejo	5,904	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Totals	698,748	873	120	23	12	1	15	5	7	8	1	2	5	3	9	4	16	--	16	6	--	57	11	552

AUGUST, 1900.

Reports from 22 cities, towns, villages, and sanitary districts, aggregating a population of 410,204, show a mortality of 379—a death-rate of .09 per thousand for August, 1900, or 10.8 per thousand per annum.

There were 66 deaths from consumption, 16 from diphtheria, 6 from pneumonia, 6 from bronchitis, 2 from diarrhoea and dysentery, 2 from cholera infantum, 6 from other diseases of the stomach and bowels, 6 from diphtheria, 1 from croup, 1 from measles, 2 from malarial fevers, 8 from typhoid fever, 10 from cerebro-spinal fever, 11 from cancer, 37 from heart diseases, 5 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show the absence of any form of epidemic and a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during August, 1900.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhoea and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Alameda	11,900	14	1	2	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	1	--	8
Colton and vicinity	2,500	0	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Downey and vicinity	2,500	3	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	7
Eureka and vicinity	8,000	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1	--	1	1	5
Fresno	12,000	12	1	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	1	1	--	--	--	5
Lincoln	1,200	1	--	--	--	--	--	--	--	3	--	--	1	--	--	1	2	--	5	--	--	13	2	74
Los Angeles	103,000	131	18	7	5	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	10	--	29
Napa	4,500	61	13	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--	2	--	--	--	--	3
Oakland	75,000	61	13	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12
Pleasanton	10,000	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5
Redlands and vicinity	3,500	7	2	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	1	--	3
Sacramento	30,000	24	9	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	12
San Bernardino	10,000	10	3	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	--	--	5
San Luis Obispo	6,000	12	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	9
Santa Barbara	6,700	8	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	5
Santa Clara	12,887	25	2	2	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	2	--	15
Santa Clara	5,594	21	5	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	9
Santa Cruz	3,500	8	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	1	--	4
Santa Monica	10,000	6	2	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	2	--	1
Santa Rosa	17,500	16	5	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	1	--	--	--	--	5
Stockton	5,904	8	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5
Vallejo	700	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Wheatland	700	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Totals	410,204	379	66	16	6	--	2	2	6	6	1	--	1	--	--	2	8	--	10	--	11	37	5	200

Reports from 23 cities, towns, villages, and sanitary districts, aggregating a population of 337,185, show a mortality of 428—a death-rate of .09 per thousand for September, 1900, or 10.8 per thousand per annum.

There were 71 deaths from consumption, 16 from pneumonia, 3 from bronchitis, 2 from congestion of the lungs, 2 from diarrhoea and dysentery, 11 from cholera infantum, 4 from other diseases of the stomach and bowels, 3 from diphtheria, 1 from croup, 1 from malarial fever, 8 from typhoid fever, 8 from cerebro-spinal fever, 19 from cancer, 30 from heart diseases, and 6 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during September, 1900.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhoea and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho- Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro - Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes	
Alameda	11,900	17	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	1	-	11	
Azusa and vicinity	2,000	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Chico and vicinity	7,500	6	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Eureka and vicinity	10,000	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	
Fresno	12,000	19	2	2	-	1	1	3	1	-	-	-	-	-	-	-	-	-	-	1	-	1	-	9	
Highlands	1,800	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Lincoln	1,200	3	-	-	-	-	-	1	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	1	
Los Angeles	103,000	117	25	1	-	-	-	2	-	1	1	-	-	-	-	-	2	-	2	2	-	-	1	72	
Napa	4,500	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Oakland	75,000	90	13	3	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	2	-	-	1	52	
Pomona and vicinity	7,500	12	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Pleasanton	10,000	3	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	
Redlands and vicinity	3,500	9	3	-	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
Sacramento	30,000	40	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	
San Bernardino	10,000	5	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	2	
San Luis Obispo	6,000	12	2	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	5	
Santa Barbara	6,700	10	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	
Santa Clara Co	2,887	27	5	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	19	
Santa Clara Cruz	5,594	11	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	7	
Santa Monica	3,500	7	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	4	
Stockton	20,000	12	4	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
Vallejo	5,904	10	2	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
Wheatland	700	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	
Totals	337,185	428	71	16	3	2	2	11	4	3	1	-	-	-	-	1	8	-	-	8	19	-	30	6	243

OCTOBER, 1900.

Reports from 19 cities, towns, villages, and sanitary districts, aggregating a population of 313,398, show a mortality of 357—a death-rate of 1.13 per thousand for October, 1900, or 13.56 per thousand per annum.

There were 56 deaths from consumption, 20 from pneumonia, 1 from congestion of the lungs, 4 from diarrhoea and dysentery, 4 from cholera infantum, 7 from other diseases of the stomach and bowels, 1 from diphtheria, 2 from scarlatina, 14 from typhoid fever, 1 from intermittent fever, 4 from cerebro-spinal fever, 13 from cancer, 5 from erysipelas, 34 from heart diseases, and 4 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during October, 1900.

Cities and Towns.	Estimated Popu- lation	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhoea and Dys- entery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho- Malarial Fev'rs	Typhoid Fever	Remittent and In- termittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Alameda	11,900	19	2	3	--	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	1	--	11
Chico and vicinity	7,500	4	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	2	--	--	2	--	2	1
Downey and vicinity	2,500	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1	--	1	--	1
Eureka and vicinity	10,000	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4
Lincoln	1,200	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Los Angeles	103,000	135	32	5	--	2	--	1	1	--	--	--	--	--	--	--	4	2	2	--	--	15	3	72
Mariposa	1,500	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
McCloud	600	1	10	6	--	2	--	--	--	--	--	1	--	--	--	--	1	1	--	7	--	10	--	48
Oakland	75,000	89	1	--	--	1	--	--	--	1	--	--	--	--	--	--	3	2	1	2	--	2	--	16
Redlands and vicinity	3,500	4	1	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3
Sacramento	30,000	28	2	2	--	--	--	--	1	--	--	--	--	--	--	--	2	--	--	2	--	2	--	4
San Bernardino	10,000	5	--	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	3
Santa Barbara	6,700	10	2	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4
Santa Cruz	5,594	14	3	--	--	--	--	1	1	--	--	--	--	--	--	--	1	--	--	1	--	1	--	8
Santa Monica	3,500	6	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Santa Rosa	10,000	3	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Stockton	25,000	15	3	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	5
Vallejo	5,904	12	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8
Wheatland	700	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Totals	313,398	357	56	20	--	1	4	4	7	1	--	2	--	--	--	--	14	1	4	13	5	34	4	187

NOVEMBER, 1900.

Reports from 21 cities, towns, villages, and sanitary districts, aggregating a population of 689,277, show a mortality of 1,006—a death-rate of 1.46 per thousand for November, 1900, or 17.52 per thousand per annum.

There were 156 deaths from consumption, 71 from pneumonia, 22 from bronchitis, 6 from congestion of the lungs, 7 from diarrhoea and dysentery, 4 from cholera infantum, 58 from other diseases of the stomach and bowels, 13 from diphtheria, 3 from croup, 6 from scarlatina, 8 from measles, 6 from whooping-cough, 5 from malarial fever, 26 from typhoid fever, 44 from cancer, 1 from erysipelas, 103 from heart diseases, and 23 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during November, 1900.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhoea and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Alameda	17,000	15	3							2									1					6
Azusa and vicinity	2,000	5	1							1														2
Chico and vicinity	7,500	9	1	1						1														5
Eureka and vicinity	10,000	10	1							1														7
Fresno	15,000	32	2						3	1														14
Grass Valley and vicinity	7,000	3																						2
Highlands	2,000	2																						2
Lincoln	1,200	4																						2
Los Angeles	103,000	134	32	10	1					2		2												67
Mariposa	425	0																						1
Napa	4,500	5	2								2													1
Oakland	75,000	86	14	8	5		1																	43
Pleasanton	11,000	3																						3
Redlands and vicinity	3,500	7	3																					18
Sacramento	30,000	39	7	2	2					1														6
San Bernardino	6,100	12	3	1																				217
San Francisco	360,000	573	77	48	13	5	5	4	54	6		3	7		6	4	1		2	27	1	67	18	11
San Luis Obispo	6,000	18	5																					11
Santa Barbara	6,700	10	1				1		1	1														5
Santa Clara County	12,887	26	3		1	1	1					1												13
Santa Cruz	10,000	0																						2
Santa Monica	3,500	5	1	1																				7
Vallejo	7,965	7																						1
Wheatland	700	1																						1
Totals	689,277	1,006	156	71	22	6	7	4	58	13	3	6	8		6	5	26		10	41	1	103	23	434

NOTE.—The Health Officer, reporting from city of Fresno, states that the cause of the large death-rate in his city is accounted for from the fact that the County transient is now located there, as well as a large private sanitarium, which draws from a large section of the surrounding country.

DECEMBER, 1900.

Reports from 20 cities, towns, villages, and sanitary districts, aggregating a population of 679,865, show a mortality of 1,106—a death-rate of 1.58 per thousand for December, 1900, or 18.96 per thousand per annum.

There were 174 deaths from consumption, 131 from pneumonia, 31 from bronchitis, 7 from congestion of the lungs, 1 from diarrhoea and dysentery, 1 from cholera infantum, 46 from other diseases of the stomach and bowels, 19 from diphtheria, 2 from croup, 3 from scarlatina, 5 from measles, 12 from whooping-cough, 2 from malarial fever, 13 from typhoid fever, 42 from cerebro-spinal fever, 11 from cancer, 1 from erysipelas, 114 from heart diseases, and 19 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during December, 1900.

Cities and Towns.	Estimated Popula- tion	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhoea and Dys- entery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho- Malarial Fever	Typhoid Fever	Remittent and Inter- mittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Alameda	11,900	22	1	1	1	1				1									1			5		12
Azusa and vicinity	4,000	4	1																					2
Chico and vicinity	7,500	3	1																			1		1
Downey and vicinity	2,500	5	1		1				1															1
Etna Mills	1,000	1															1							
Eureka and vicinity	10,000	9	1																					8
Grass Valley and vicinity	7,000	6	1																					5
Lincoln	500	0																						
Los Angeles	103,000	161	34	11	3					1		1				2		6				10	1	92
Mariposa	1,500	3																						2
Napa	4,500	18	2	1							2		1				2					3	1	5
Oakland	75,000	93	11	16	3					3							1					11		45
Pleasanton	10,000	0																						3
Redlands and vicinity	3,500	13	7	1					2														1	23
Sacramento	30,000	36	4	4												2								4
San Bernardino	10,000	8	2	1															1					16
San Francisco	360,000	680	101	94	22	5	1	1	41	14		1	4		11	2			35	1	1	79	245	
San Luis Obispo	6,000	14	3																1					9
Stockton	25,000	21	3	1					2													4		11
Vallejo	7,965	9	1	1		1											1							4
Totals	679,865	1,106	174	131	31	7	1	1	46	19	2	3	5		12	2	13		11	42	1	114	19	472

JANUARY, 1901.

Reports from 20 cities, towns, villages, and sanitary districts, aggregating a population of 696,895, show a mortality of 1,352—a death-rate of 1.92 per thousand for the month of January, 1901, or 23.04 per thousand per annum.

There were 199 deaths from consumption, 203 from pneumonia, 40 from bronchitis, 7 from congestion of the lungs, 2 from diarrhoea and dysentery, 1 from cholera infantum, 49 from other diseases of the stomach and bowels, 26 from diphtheria, 1 from croup, 2 from scarlatina, 6 from measles, 5 from whooping-cough, 1 from malarial fever, 15 from typhoid fever, 48 from cancer, 5 from erysipelas, 155 from heart diseases, and 7 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during January, 1901.

Cities and Towns.	Estimated Popula- tion	Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during January, 1901.																						
		Total Deaths	Consumption	Acute Pneumonia.	Acute Bronchitis.	Congestion of the Lungs	Diarrhœa and Dys- entery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles.	Smallpox.	Whooping-Cough	Typho-Malarial Fever	Typhoid Fever	Remittent and Inter- mittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes.
Azusa and vicinity	2,500	9	3	2	1	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Eureka and vicinity	10,000	8	2	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	5
Grass Valley and vicinity	7,000	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Lincoln	1,100	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Los Angeles	103,000	241	36	48	5	—	—	—	—	6	1	—	—	—	—	—	—	—	2	—	—	—	—	124
Mariposa	1,000	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	2
Napa	4,500	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
National City	1,200	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Oakland	75,000	88	7	18	3	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	1
Pomona and vicinity	7,500	14	4	3	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	53
Pleasanton	10,000	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7
Redlands and vicinity	5,000	18	8	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4
Sacramento	30,000	52	10	8	2	—	—	—	—	—	1	—	—	—	—	—	—	—	2	—	—	—	—	23
San Bernardino	10,000	16	3	7	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4
San Francisco	360,000	788	110	110	28	5	1	—	44	17	1	6	—	5	1	8	—	—	41	4	119	1	4	284
San Luis Obispo.	6,000	16	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13
Santa Barbara.	6,700	11	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4
Santa Clara County	25,000	27	5	2	—	2	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	15
Stockton	25,000	25	6	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11
Vallejo	7,965	19	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15
Totals	696,895	1,352	199	203	40	7	2	1	49	26	1	2	6	—	5	1	15	—	8	48	5	155	7	572

FEBRUARY, 1901.

Reports from 22 cities, towns, villages, and sanitary districts, aggregating a population of 325,704, show a mortality of 409—a death-rate of 1.25 per thousand for the month of February, 1901, or 15 per thousand per annum.

There were 73 deaths from consumption, 45 from pneumonia, 9 from bronchitis, 2 from congestion of the lungs, 1 from diarrhoea and dysentery, 3 from other diseases of the stomach and bowels, 3 from diphtheria, 2 from measles, 1 from smallpox, 1 from whooping-cough, 3 from typhoid fever, 8 from cerebro-spinal fever, 8 from cancer, 1 from erysipelas, 37 from heart diseases, and 3 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during February, 1901.

Cities and Towns.	Estimated Popula- tion	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dys- entery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho- Malarial Fever	Typhoid Fever	Remittent and Inter- mittent Fevers	Cerebro- Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes	
Bodie	800	0																						4	
Colton and vicinity	2,500	0																						3	
Fresno	12,000	14	2	2		1															1			87	
Grass Valley and vicinity	7,000	5																						2	
Lincoln	500	1				1				1							2		3						
Los Angeles	103,000	161	25	21	5																1				
Mariposa	2,000	2																							
Napa	4,500	8	1							1															
National City	1,200	0																							
Oakland	75,000	89	17	13	3					1					1				1	1	7			44	
Palo Alto	2,000	3				1																		2	
Pleasanton	10,000	0							2																
Redlands and vicinity	3,500	12	4	2																				4	
Sacramento	30,000	31	7										1						1	2				19	
San Bernardino	10,000	5	3																					2	
San Luis Obispo	6,000	10	1	1															1					7	
Santa Barbara	6,700	10	1																	1				6	
Santa Clara County	12,000	24	7																2	2				13	
Santa Monica	10,000	6	3																	2				3	
Stockton	25,000	14	1	2					1											1				6	
St. Helena and vicinity	2,800	4	1	1	1																			1	
Vallejo	5,904	10		1										1										4	
Totals	325,704	409	73	45	9	2	1		3	3			2	1	1		3		8		8	1	37	3	209

MARCH, 1901.

Reports from 17 cities, towns, and sanitary districts, aggregating a population of 345,691, show a mortality of 440—a death-rate of 1.27 per thousand for the month of March, 1901, or 15.24 per thousand per annum.

There were 97 deaths from consumption, 40 from pneumonia, 4 from bronchitis, 3 from congestion of the lungs, 2 from diarrhoea and dysentery, 3 from other diseases of the stomach and bowels, 1 from croup, 1 from diphtheria, 1 from scarlatina, 7 from typhoid fever, 9 from cerebro-spinal fever, 14 from cancer, 47 from heart diseases.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during March, 1901.

Cities and Towns.	Estimated Popula- tion.....	2,500 7,500 10,000 12,000 Fresno Highland Lincoln Los Angeles 103,000 1,200 National City 75,000 Oakland Palo Alto 2,000 7,500 Redlands and vicinity Sacramento 30,000 San Bernardino 10,000 Santa Barbara 6,700 Santa Clara County 22,887 Santa Monica 10,000 Stockton 25,000 Vallejo 5,904
	Total Deaths	4 8 11 20 0 0 168 1 105 1 14 32 5 8 26 7 19 11
	Consumption	2 2 3 3 0 37 23 11 6 7 5 5 3 3 3 1
	Acute Pneumonia..	2 2 1 1 10 10 11 2 3 6 2 6 2 1 3 3 1
	Acute Bronchitis..	1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1
	Congestion of the Lungs	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Diarrhœa and Dys- entery	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Cholera Infantum	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Other Diseases of St'mach & Bow'ls	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Diphtheria	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Croup	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Scarlatina	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Measles.....	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Smallpox.....	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Whooping-Cough ..	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Typho-Malarial Fever	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Typhoid Fever	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Remittent and In- termittent Fevers	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Cerebro-Spinal Fever	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Cancer	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Erysipelas	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Heart Diseases	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Alcoholism.....	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Other Causes.....	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

APRIL, 1901.

Reports from 20 cities, towns, villages, and sanitary districts, aggregating a population of 679,491, show a mortality of 1,103—a death-rate of 1.63 per thousand for the month of April, 1901, or 19.56 per thousand per annum.

There were 189 deaths from consumption, 127 from pneumonia, 23 from bronchitis, 6 from congestion of the lungs, 6 from diarrhoea and dysentery, 3 from cholera infantum, 37 from other diseases of the stomach and bowels, 13 from diphtheria, 2 from croup, 4 from scarlatina, 2 from measles, 8 from whooping-cough, 13 from typhoid fever, 14 from cerebro-spinal fever, 39 from cancer, 2 from erysipelas, 110 from heart diseases, 9 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during April, 1901.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhoea and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Colton and vicinity	2,500	4	3																					1
Chico and vicinity	7,500	6	1	1																				4
Fresno	12,000	34	6	2	3				1													3		16
Highland	1,000	1																						
Lincoln	500	0																						
Los Angeles	103,000	170	31	21	3		1			3		4	1				4		2			12		88
Mariposa	1,000	4	1	2																				1
National City	1,200	3																						2
Oakland	75,000	77	11	9					1								2		2		3	10		39
Pleasanton	11,000	4	1														1							2
Redlands and vicinity	3,500	11	3	1	1				1	2					1				1			2		1
Sacramento	30,000	42	16	8	1																			4
San Bernardino	10,000	11	1						1															
San Francisco	360,000	652	102	72	15	5	4	2	33	6					7	5	1		5	33	1	63	8	290
San Luis Obispo	6,000	15	2	2																				11
Santa Barbara	6,700	11	3	1																		3		4
Santa Clara County	12,887	27	4	4		1				1												5		11
Stockton	25,000	21	3	4																				6
St. Helena and vicinity	2,800	3	1																1			1		
Vallejo	5,904	7																	1					5
Totals	679,491	1,113	189	127	23	6	6	3	37	13	2	4	2		8		13		14	39	2	110	9	496

MAY, 1901

Reports from 17 cities, towns, villages, and sanitary districts, aggregating a population of 641,816, show a mortality of 961—a death-rate of 1.49 per thousand for the month of May, 1901, or 17.88 per thousand per annum.

There were 142 deaths from consumption, 78 from pneumonia, 12 from bronchitis, 2 from congestion of the lungs, 5 from diarrhoea and dysentery, 3 from cholera infantum, 53 from other diseases of the stomach and bowels, 12 from diphtheria, 2 from scarlatina, 2 from measles, 5 from whooping-cough, 5 from typhoid fever, 10 from cerebro-spinal fever, 54 from cancer, 5 from erysipelas, 90 from heart diseases, 13 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during May, 1901.

Cities and Towns.	Estimated Popula- tion	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhoea and Dys- entery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho- Malarial Fever	Typhoid Fever	Remittent and Inter- mittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Colton and vicinity	2,500	3	1	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4
Cloverdale	1,500	5	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18
Fresno	38,240	25	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Healdsburg	1,485	6	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Lincoln	1,100	4	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Los Angeles	103,000	148	21	7	2	—	1	—	2	—	—	—	—	—	—	—	—	—	2	—	—	10	2	101
Napa	4,500	4	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	33
Oakland	75,000	81	11	15	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—	12	—	6
Pomona and vicinity	7,500	13	5	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Pleasanton	11,000	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Redlands and vicinity	3,500	6	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	19
Sacramento	30,000	36	6	3	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11
San Francisco	360,000	591	78	48	9	2	3	3	49	9	—	2	1	—	3	—	—	—	7	39	5	56	263	5
Santa Barbara	6,700	6	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6
Santa Clara County	12,887	21	5	4	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1
Santa Monica	5,000	3	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7
Vallejo	5,904	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	641,816	961	142	78	12	2	5	3	53	12	—	2	2	—	5	—	5	—	10	54	5	90	13	468

JUNE, 1901.

Reports from 20 cities, towns, villages, and sanitary districts, aggregating a population of 734,952, show a mortality of 960—a death-rate of 1.30 per thousand for the month of June, 1901, or 15.60 per thousand per annum.

There were 146 deaths from consumption, 75 from pneumonia, 19 from bronchitis, 6 from congestion of the lungs, 6 from diarrhoea and dysentery, 9 from cholera infantum, 46 from other diseases of the stomach and bowels, 13 from diphtheria, 1 from scarlatina, 7 from whooping-cough, 2 from malarial fever, 8 from typhoid fever, 22 from cerebro-spinal fever, 31 from cancer, 3 from erysipelas, 105 from heart diseases, 11 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during June, 1901.

Cities and Towns.	Estimated Population.	Total Deaths.	Consumption.	Acute Pneumonia.	Acute Bronchitis.	Congestion of the Lungs.	Diarrhoea and Dysentery.	Cholera Infantum.	Other Diseases of St'mach & Bow'ls.	Diphtheria.	Croup.	Scarlatina.	Measles.	Smallpox.	Whooping-Cough.	Typho-Malarial Fevers.	Typhoid Fever.	Remittent and Intermittent Fevers.	Cerebro-Spinal Fever.	Cancer.	Erysipelas.	Heart Diseases.	Alcoholism.	Other Causes.
Alameda	17,000	34	5	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4	--	--	6	--	16
Azusa and vicinity	2,500	2	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Colton and vicinity	2,500	2	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chico and vicinity	7,500	14	2	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	3
Fresno	38,000	24	3	2	1	--	--	1	--	--	--	--	--	--	--	2	--	--	--	--	--	4	--	13
Healdsburg	3,500	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1
Lincoln	1,100	2	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Los Angeles	103,000	147	22	9	--	--	2	--	--	--	--	--	--	--	--	--	1	1	5	--	--	20	1	87
Napa	4,500	12	1	--	--	--	--	1	--	--	--	--	--	--	1	--	1	4	--	--	--	2	--	4
Oakland	75,000	86	10	9	2	--	--	1	--	--	--	--	--	--	1	--	1	--	5	--	--	10	--	44
Pomona and vicinity	7,500	4	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pleasanton	11,000	6	1	--	--	--	--	--	3	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1
Redlands and vicinity	5,000	11	6	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	3	--	1
Redlands and vicinity	5,000	11	6	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sacramento	30,000	46	6	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
San Diego	20,000	12	3	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	2	--	27
San Francisco	360,000	507	71	44	16	5	3	4	34	11	--	1	--	--	6	5	48	3	25	1	--	3	7	219
San Luis Obispo and vicinity	6,000	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6
San Luis Obispo and vicinity	6,000	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Santa Barbara	6,700	9	3	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	2	--	2
Santa Clara County	12,887	24	9	1	--	--	1	--	--	1	--	--	--	--	--	--	--	--	1	--	--	1	--	10
Vallejo	7,965	8	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7
Totals	734,952	960	146	75	19	6	6	9	46	13	--	1	--	--	7	2	8	--	22	31	3	105	11	450

JULY, 1901.

Reports from 22 cities, towns, villages, and sanitary districts, aggregating a population of 686,991, show a mortality of 922—a death-rate of 1.34 per thousand for the month of July, 1901, or 16.08 per thousand per annum.

There were 136 deaths from consumption, 55 from pneumonia, 10 from bronchitis, 5 from congestion of the lungs, 3 from diarrhoea and dysentery, 15 from cholera infantum, 42 from other diseases of the stomach and bowels, 8 from diphtheria, 1 from scarlatina, 1 from measles, 5 from whooping-cough, 3 from malarial fever, 15 from typhoid fever, 10 from cerebro-spinal fever, 42 from cancer, 92 from heart diseases, 11 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during July, 1901.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhoea and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Azusa and vicinity	2,500	0																						1
Colton and vicinity	2,500	0																						12
Carters	500	0																						1
Cloverdale	1,500	1																						1
Chico and vicinity	7,500	2																						1
Fresno	12,000	24	3	1			1																	1
Headsburg	3,500	3																						1
Lincoln	1,100	2																						1
Los Angeles	103,000	150	31	8	1	1																		2
Mariposa	425	1																						90
Napa	4,500	4																						3
Oakland	75,000	68	5	7																				39
Pomona and vicinity	7,500	5	1																					3
Pleasanton	11,000	2																						1
Redlands and vicinity	3,500	4	2	1																				2
Sacramento	30,000	40	7	1	1																			17
San Diego	20,000	20	5	2																				2
San Francisco	360,000	530	74	33	8	4	1	11	36	6		1	1		5		6		3	25		52	9	257
San Luis Obispo and vicinity	6,000	13	3																					8
Santa Barbara	6,700	10	1	3				1	2															4
Santa Clara County	12,887	32	3																					14
Vallejo	5,904	9	1																					7
Totals	686,991	922	136	55	10	5	3	15	42	8		1	1		5	3	15		10	42		92	11	468

AUGUST, 1901.

Reports from 19 cities, towns, villages, and sanitary districts, aggregating a population of 662,291, show a mortality of 834—a death-rate of 1.25 per thousand for the month of August, 1901, or 15.00 per thousand per annum.

There were 105 deaths from consumption, 51 from pneumonia, 11 from bronchitis, 2 from congestion of the lungs, 1 from diarrhoea and dysentery, 7 from cholera infantum, 48 from other diseases of the stomach and bowels, 14 from diphtheria, 1 from croup, 2 from scarlatina, 2 from measles, 3 from whooping-cough, 3 from malarial fevers, 15 from typhoid fever, 2 from intermittent fever, 5 from cerebro-spinal fever, 34 from cancer, 69 from heart diseases, 6 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during August, 1901.

Cities and Towns.	Estimated Popula- tion.	Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during August, 1901.																						
		Consumption	Acute Pneumonia.	Acute Bronchitis.	Congestion of the Lungs	Diarrhœa and Dys- entery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles.	Smallpox.	Whooping-Cough	Typho-Malarial Fever	Typhoid Fever	Remittent and In- termittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas.	Heart Diseases	Alcoholism	Other Causes.	
Azusa and vicinity	2,500	4																					4	
Carters	2,500	2																					1	
Chico and vicinity	7,500	3																					3	
Etna Mills	1,000	2																					1	
Fresno	12,000	21																					10	
Grass Valley and vicinity	7,000	3	1																				1	
Los Angeles	103,000	128	26	5	2		1		2														80	
Napa	4,500	6																					4	
Oakland	75,000	83	8	5			2																46	
Pomona and vicinity	7,500	12	4																				8	
Pleasanton	10,000	0																						
Redlands and vicinity	3,500	7																						
Sacramento	30,000	31	3	3				3																
San Francisco	360,000	478	51	33	9	2	2	44	12		1	2		2	1	6		1					13	
San Luis Obispo and vicinity	6,000	5																					5	
Santa Barbara	6,700	6	1	1																			4	
Santa Clara County	12,887	26	5	1																			14	
St. Helena and vicinity	2,800	5	2																				3	
Vallejo	7,904	12	2																				9	
Totals	662,291	834	105	51	11	2	7	48	14	1	2	2		3	3	15	2	5	34		69	6	453	

SEPTEMBER, 1901.

Reports from 16 cities, towns, villages, and sanitary districts, aggregating a population of 651,176, show a mortality of 877—a death-rate of 1.34 per thousand for the month of September, 1901, or 16.08 per thousand per annum.

There were 128 deaths from consumption, 46 from pneumonia, 10 from bronchitis, 2 from congestion of the lungs, 7 from diarrhoea and dysentery, 10 from cholera infantum, 54 from other diseases of the stomach and bowels, 14 from diphtheria, 2 from croup, 4 from scarlatina, 3 from whooping-cough, 2 from malarial fevers, 17 from typhoid fever, 7 from cerebro-spinal fever, 40 from cancer, 1 from erysipelas, 91 from heart diseases, 10 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during September, 1901.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhoea and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Cloverdale	1,500	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1
Chico and vicinity	7,500	9	9	9	9	9	9	9	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6
Fresno	12,000	27	3	3	3	3	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9
Headsburg	1,485	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Los Angeles	103,000	147	28	7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	87
Napa	4,500	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
National City	1,200	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1
Oakland	75,000	71	3	4	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	42
Pleasanton	10,000	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1
Redlands and vicinity	3,500	6	2	4	4	4	4	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Sacramento	30,000	31	6	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	13
San Francisco	360,000	516	75	24	6	2	3	9	45	11	1	4	3	3	3	3	3	3	3	3	3	3	3	239
San Luis Obispo	6,000	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Santa Barbara	6,700	12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
Santa Clara County	12,887	29	5	2	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	15
Vallejo	5,904	10	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	5
Totals	651,176	877	128	46	10	2	7	10	54	14	2	4	2	2	3	2	17	7	40	40	1	91	10	429

OCTOBER, 1901.

Reports from 18 cities, towns, villages, and sanitary districts, aggregating a population of 659,037, show a mortality of 955—a death-rate of 1.44 per thousand for the month of October, 1901, or 17.28 per thousand per annum.

There were 126 deaths from consumption, 59 from pneumonia, 19 from diphtheria, 2 from congestion of the lungs, 9 from diarrhoea and dysentery, 9 from cholera infantum, 41 from other diseases of the stomach and bowels, 14 from diphtheria, 1 from smallpox, 4 from whooping-cough, 1 from typho-malarial fever, 25 from typhoid fever, 11 from cerebro-spinal fever, 39 from cancer, 2 from erysipelas, 97 from heart diseases, 13 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during October, 1901.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhoea and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Carters	500	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Colton and vicinity	2,500	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6
Chico and vicinity	7,500	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4
Fresno	15,000	23	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6
Grass Valley and vicinity	7,000	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7
Healdsburg	1,485	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Los Angeles	103,000	149	25	11	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	90
Napa	4,500	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
National City	1,200	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Oakland	75,000	77	16	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	37
Pleasanton	11,000	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4
Redlands and vicinity	3,500	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Sacramento	30,000	31	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22
San Francisco	360,000	566	68	35	14	1	6	8	33	10	1	1	1	1	1	1	1	1	1	1	1	1	1	260
San Luis Obispo	6,000	11	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8
Santa Barbara	6,700	11	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4
Santa Clara County	22,887	23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	11
Vallejo	7,965	15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	13
Totals	659,037	955	126	59	19	2	9	9	41	14	1	1	1	1	4	1	25	11	11	39	2	97	13	482

NOVEMBER, 1901.

Reports from 17 cities, towns, villages, and sanitary districts, aggregating a population of 674,676, show a mortality of 940—a death-rate of 1.40 per thousand for the month of November, 1901, or 16.80 per thousand per annum.

There were 123 deaths from consumption, 86 from pneumonia, 22 from diarrhoea and dysentery, 8 from cholera infantum, 58 from other diseases of the stomach and bowels, 16 from diphtheria, 1 from croup, 1 from whooping-cough, 1 from malarial fever, 14 from typhoid fever, 7 from cerebro-spinal fever, 34 from cancer, 1 from erysipelas, 99 from heart diseases, 10 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during November, 1901.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhoea and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho - Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro - Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Azusa and vicinity	2,500	3				1																		2
Carters	1,000	3																						3
Cloverdale	1,500	4	1	1																				3
Fresno	35,000	30		7	2			2	2								1		1					13
Healdsburg	3,485	9	1	1					1	1														5
Los Angeles	103,000	159	26	16	1												2		2				2	95
Napa	4,500	9	1																					5
National City	1,200	0																						
Oakland	75,000	75	9	9	2						1								1					44
Pleasanton	11,000	3		1																				2
Redlands and vicinity	3,500	5	3																					5
Sacramento	30,000	28	5	1	2		1	1																2
San Francisco	360,000	564	69	44	14	2	1	4	54	15					1	1	10		2	33	1	58	6	249
San Luis Obispo	6,000	5																						3
Santa Barbara	6,700	9	3	1	1																			2
Santa Clara County	22,887	20	5	3																				8
Vallejo	7,904	14		2				1	1															9
Totals	674,676	940	123	86	22	3	3	8	58	16	1				1	1	14		7	34	1	99	10	453

DECEMBER, 1901.

Reports from 19 cities, towns, villages, and sanitary districts, aggregating a population of 696,076, show a mortality of 1,060—a death-rate of 1.52 per thousand for the month of December, 1901, or 18.24 per thousand per annum.

There were 134 deaths from consumption, 111 from acute pneumonia, 16 from acute bronchitis, 5 from congestion of the lungs, 5 from diarrhoea and dysentery, 7 from cholera infantum, 39 from other diseases of the stomach and bowels, 26 from diphtheria, 2 from scarlatina, 1 from malarial fever, 12 from typhoid fever, 2 from remittent and intermittent fever, 12 from cerebro-spinal fever, 43 from cancer, 116 from heart diseases, 10 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during December, 1901.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhoea and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Carters	500	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cloverdale	1,500	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Chico and vicinity	7,500	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Fresno	35,000	29	1	5	1	1	1	1	1	2	1	1	1	1	1	1	3	1	1	1	1	1	1	1
Healdsburg	1,485	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Lincoln	1,100	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Lodi and vicinity	1,500	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Los Angeles	120,000	194	14	28	1	1	1	1	1	1	1	1	1	1	1	1	2	1	3	1	1	8	2	136
Napa	4,500	18	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6
National City	1,200	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Oakland	75,000	93	1	6	2	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	44
Pleasanton	11,000	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Redlands and vicinity	3,500	12	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
Sacramento	30,000	33	7	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	12
Sacramento	360,000	586	81	53	13	4	3	2	26	19	2	2	2	2	2	3	1	1	2	34	71	4	5	267
San Francisco	6,000	9	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4
San Luis Obispo	6,700	12	3	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4
Santa Barbara	12,887	31	7	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9
Santa Clara County	7,904	14	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10
Vallejo	7,904	14	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Totals	696,076	1,060	134	111	16	5	5	7	39	26	2	2	2	2	2	1	12	2	12	43	116	10	10	519

JANUARY, 1902.

Reports from 20 cities, towns, villages, and sanitary districts, aggregating a population of 705,241, show a mortality of 1,282—a death-rate of 1.81 per thousand for the month of January, 1902, or 21.72 per thousand per annum.

There were 199 deaths from consumption, 181 from pneumonia, 33 from bronchitis, 6 from congestion of the lungs, 1 from diarrhoea and dysentery, 29 from other diseases of the stomach and bowels, 37 from diphtheria, 2 from croup, 5 from scarlatina, 2 from measles, 1 from smallpox, 1 from malarial fever, 13 from typhoid fever, 42 from cerebro-spinal fever, 42 from croup, 5 from erysipelas, 115 from heart diseases, 7 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during January, 1902.

Cities and Towns.	Estimated Population	Total Deaths.	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhoea and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Fresno County	37,000	36	--	6	3	--	--	--	2	1	--	--	--	--	--	--	--	--	--	2	1	2	--	19
Grass Valley and vicinity	7,000	2	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Healdsburg	3,500	5	1	1	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Lincoln	1,100	2	--	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Los Angeles	120,000	221	57	47	6	--	--	--	1	3	--	1	--	--	--	2	--	--	3	--	--	15	1	86
Napa	4,500	11	1	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	--	4
National City	1,200	2	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Nevada City	3,500	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Oakland	75,000	102	14	12	7	--	--	--	--	1	--	2	--	--	--	--	--	--	--	--	--	--	--	2
Pleasanton	10,000	2	1	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Redlands and vicinity	13,500	2	5	2	1	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Sacramento	30,000	39	2	5	2	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	2
San Francisco	360,000	749	106	92	12	5	1	--	23	28	--	2	2	--	--	9	1	5	1	35	4	6	6	21
San Luis Obispo	6,000	9	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7
Santa Barbara	6,700	10	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4
Santa Clara County	12,887	37	3	7	2	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	17
Stockton	25,000	14	2	2	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	9
St. Helena and vicinity	2,800	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Tehama	350	6	--	--	--	--	--	--	--	2	2	--	--	--	--	--	--	--	--	--	--	--	--	1
Valejo	7,904	16	4	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9
Totals	705,241	1,282	199	181	33	6	1	--	29	37	2	5	2	1	--	13	42	--	10	42	5	115	7	593

FEBRUARY, 1902.

Reports from 24 cities, towns, villages, and sanitary districts, aggregating a population of 707,964, show a mortality of 1,162—a death-rate of 1.64 per thousand for the month of February, 1902, or 19.68 per thousand per annum.

There were 172 deaths from consumption, 149 from pneumonia, 22 from bronchitis, 5 from congestion of the lungs, 1 from diarrhoea and dysentery, 32 from other diseases of the stomach and bowels, 30 from diphtheria, 1 from croup, 5 from scarlatina, 1 from measles, 1 from smallpox, 4 from whooping-cough, 9 from typhoid fever, 5 from cerebro-spinal fever, 45 from cancer, 1 from erysipelas, 95 from heart diseases, 11 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during February, 1902.

Cities and Towns.	Estimated Population.	Total Deaths.	Consumption.	Acute Pneumonia.	Acute Bronchitis.	Congestion of the Lungs.	Diarrhoea and Dysentery.	Cholera Infantum.	Other Diseases of St'mach & Bow'ls.	Diphtheria.	Croup.	Scarlatina.	Measles.	Smallpox.	Whooping-Cough.	Typho-Malarial Fevers.	Typhoid Fever.	Remittent and Intermittent Fevers.	Cerebro-Spinal Fever.	Cancer.	Erysipelas.	Heart Diseases.	Alcoholism.	Other Causes.
Auburn	1,601	10	1	4																				4
Azusa and vicinity	2,500	2	1																					1
Carters	500	3			1																			1
Cloverdale	1,500	2																						2
Fresno	15,000	22	1	2	1				2															13
Grass Valley and vicinity	7,000	2								1														1
Healdsburg	3,500	4																						3
Los Angeles	103,000	215	50	30	4					2		2							1	1				107
Napa	4,500	13	4	1																				5
National City	1,200	1		1																				1
Nevada City	2,736	3	1							1														3
Oakland	75,000	98	9	13	5	1				1									1	7				5
Pleasanton	10,000	0							1															53
Redlands and vicinity	3,500	10	4	5																				4
Sacramento	30,000	38	4			1				1														4
San Francisco	360,000	626	80	72	9	1			28	1		3	1		4	2		2		1			7	302
San José	18,027	34	4	8	2					24								1		32				22
San Luis Obispo	6,000	14	3								1									2				14
Santa Barbara	6,700	13	3	2																				9
Stockton	25,000	17	1	8																1				8
St. Helena and vicinity	2,800	7	2			1			1															5
Tehama	8,350	8	1																					3
Vallejo	8,500	11	1	1																				6
Yolo County	13,250	9	2	1		1																		7
Totals	707,964	1,162	172	149	22	5	1		32	30	1	5	1	1	4		9		5	45	1		11	573

MARCH, 1902.

Reports from 19 cities, towns, villages, and sanitary districts, aggregating a population of 671,655, show a mortality of 1,119—a death-rate of 1.65 per thousand for the month of March, 1902, or 19.80 per thousand per annum.

There was 180 deaths from consumption, 117 from pneumonia, 19 from bronchitis, 1 from congestion of the lungs, 1 from cholera infantum, 28 from other diseases of the stomach and bowels, 40 from diphtheria, 1 from croup, 4 from scarlatina, 2 from measles, 1 from malarial fever, 6 from typhoid fever, 6 from cerebro-spinal fever, 47 from cancer, 2 from erysipelas, 103 from heart diseases, 11 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstracts of the Reports of Deaths and their Causes in the following Cities and Towns of California during March, 1902.

Cities and Towns.	Estimated Popu- lation	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dys- entery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho- Malarial Fever	Typhoid Fever	Remittent and Inter- mittent Fevers	Cerebro- Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Azusa and vicinity	2,000	5																					3
Carters	1,500	4	1																				2
Fresno	12,000	12	3					2															7
Grass Valley and vicinity	7,000	17		2					1										1				12
Healdsburg	1,485	2																					1
Los Angeles	120,000	234	53	30	4		1		2		3												126
National City	1,200	2																					1
Nevada City	2,736	7																					4
Oakland	75,000	74	7	8	4			1	5									1					43
Placer County	1,684	8	2							1													3
Pleasanton	1,000	2																					1
Redlands and vicinity	3,500	13	6		1																		5
Sacramento	30,000	34	4	2	2																		18
San Francisco	360,000	640	96	69	7	1		23	28		1	2			1	3		2	40	1	68	9	289
San Luis Obispo	6,000	11	2	1																			5
Santa Barbara	6,700	12	3						3							1					2		3
Stockton	25,000	17	1	1															2				11
Tehama County	6,350	12	2	1				2	1														6
Vallejo	8,500	13		2																			10
Totals	671,655	1,119	180	117	19	1	1	28	40	1	4	2			1	6		6	47	2	103	11	550

APRIL, 1902.

Reports from 18 cities, towns, villages, and sanitary districts, aggregating a population of 658,920, show a mortality of 1,013—a death-rate of 1.53 per thousand for the month of April, 1902, or 18.36 per thousand per annum.

There were 163 deaths from consumption, 98 from pneumonia, 11 from bronchitis, 2 from congestion of the lungs, 4 from diarrhoea and dysentery, 3 from cholera infantum, 24 from other diseases of the stomach and bowels, 24 from diphtheria, 1 from scarlatina, 8 from measles, 6 from typhoid fever, 8 from cerebro-spinal fever, 34 from cancer, 3 from erysipelas, 118 from heart diseases, 7 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during April, 1902.

Cities and Towns.	Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during April, 1902.																							
	Estimated Popula- tion	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dys- entery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho- Malarial Fever	Typhoid Fever	Remittent and In- termittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Carters	600	3	—	1	—	—	—	—	2	—	—	—	—	—	—	—	1	—	—	—	—	—	—	2
Fresno	12,000	27	3	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10
Healdsburg	3,500	9	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Los Angeles	103,000	172	41	14	—	—	2	1	—	5	—	—	—	—	—	—	—	1	—	—	—	—	—	98
Napa	4,500	8	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4
National City	1,200	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Nevada City	2,736	6	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Oakland	75,000	84	11	10	3	—	1	—	—	2	—	—	—	—	—	—	2	—	1	—	—	—	—	41
Pleasant County	1,684	7	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Pleasanton	1,000	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Redlands and vicinity	3,500	14	8	1	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Sacramento	30,000	25	6	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13
San Francisco	360,000	608	83	55	8	2	1	2	19	16	—	1	6	—	—	—	3	6	—	—	—	—	5	292
San Luis Obispo.	6,000	12	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7
Santa Barbara	6,700	3	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	2
Santa Clara	4,000	2	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Stockton	25,000	21	5	2	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	8
Vallejo	8,500	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9
Totals	658,920	1,013	163	98	11	2	4	3	24	24	—	1	8	—	—	—	6	—	8	34	3	118	7	499

MAY, 1902.

Reports from 20 cities, towns, villages, and sanitary districts, aggregating a population of 712,786, show a mortality of 939—a death-rate of 1.31 per thousand for the month of May, 1902, or 15.72 per thousand per annum.

There were 124 deaths from consumption, 86 from pneumonia, 11 from bronchitis, 7 from congestion of the lungs, 5 from diarrhoea and dysentery, 1 from cholera infantum, 44 from other diseases of the stomach and bowels, 19 from diphtheria, 7 from measles, 14 from typhoid fever, 1 from remittent fever, 4 from cerebro-spinal fever, 38 from cancer, two from erysipelas, 85 from heart diseases, 10 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during May, 1902.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhoea and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho - Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Azusa and vicinity	2,000	1			1																		2
Carters	350	3			1																		11
Cloverdale	1,500	0			1				1										1				4
Fresno	35,000	22	4		1	2																	4
Long Beach and vicinity	4,000	7		1	2					2						3							117
Los Angeles	120,000	182	28	18					1														3
Napa	4,500	7	1																1				
National City	1,200	0																					
Nevada City	2,736	2	1																1				
Oakland	75,000	64	7	4	1	1			3	1							1						39
Placer County	11,000	5		1	1				1														1
Pleasanton	11,000	1																					
Redlands and vicinity	3,500	8	4	2																			2
Sacramento	30,000	23	2	2	1					1													14
San Francisco	360,000	578	69	54	3	1	3	1	35	14			6			9	2	63	33	2		9	275
San Luis Obispo	6,000	7	1	1												1							4
Santa Barbara	7,500	8	2	1	1					1									1				2
Santa Clara	4,000	3				1																	1
Santa Clara	25,000	8	1	2																			4
Stockton	25,000	8	1	2																			4
Vallejo	8,500	10	3	1		1			2														3
Totals	712,786	939	124	86	11	7	5	1	44	19			7			14	85	4	38	2		10	481

JUNE, 1902.

Reports from 19 cities, towns, villages, and sanitary districts, aggregating a population of 673,685, show a mortality of 957—a death-rate of 1.42 per thousand for the month of June, 1902, or 17.04 per thousand per annum.

There were 134 deaths from consumption, 64 from pneumonia, 9 from bronchitis, 1 from congestion of the lungs, 3 from diarrhoea and dysentery, 7 from cholera infantum, 47 from other diseases of the stomach and bowels, 25 from diphtheria, 2 from scarlatina, 1 from measles, 1 from malarial fever, 10 from typhoid fever, 7 from cerebro-spinal fever, 29 from cancer, 3 from erysipelas, 103 from heart diseases, 4 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during June, 1902.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhoea and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Cloverdale	1,500	3						1	3		1					1			1					2
Fresno	15,000	20	3	1																				7
Healdsburg	3,500	3	1																					2
Los Gatos	1,645	2																						
Los Angeles	120,000	185	17	9	2			1		1							2		2		1			127
Napa	4,500	6	1																					3
National City	1,200	1																						1
Nevada City	2,736	12		1																				9
Oakland	75,000	74	12	9	1			2		2							2		2					33
Pleasanton	11,000	6	1	1	1			1	1															
Redlands and vicinity	3,500	8	2																					4
Riverside	9,000	8	2	2					1	1										1				2
Sacramento	30,000	32	5	3					1										1					18
San Francisco	360,000	551	81	40	3	1	2	2	40	21	1	2	1			6		1	1	23	1		4	265
San Luis Obispo	6,000	11	4																					7
Santa Barbara	6,700	11	1																					9
Santa Clara	4,000	2																						1
Stockton	25,000	15	1				1													1				11
Vallejo	8,904	7	2									1								1				3
Totals	673,685	957	134	64	9	1	3	7	47	25	2	3	1			1	10		7	29	3	103	4	504

DEATHS FROM COMMUNICABLE DISEASES,

As per Monthly Reports made by the Secretary of the State Board of Health for the Fifty-third Fiscal Year.

1901-1902.	Scarlatina	Diphtheria	Measles	Whooping-Cough	Typhoid Fever	Tuberculosis	Total, including Tuberculosis	All Other Causes	Grand Total	Population Reporting
1901.										
July	1	8	1	5	15	136	166	756	1,088	686,991
August	2	14	2	3	15	105	141	694	976	662,291
September	4	14		3	17	128	166	711	1,043	651,176
October		14		4	25	126	169	786	1,124	659,037
November		16		1	14	123	154	786	1,094	674,676
December	2	26			12	134	174	886	1,234	696,076
1902.										
January	5	37	2		13	199	256	1,026	1,538	705,241
February	5	30	1	4	9	172	221	941	1,383	707,964
March	4	40	2		6	180	232	887	1,351	671,655
April	1	24	8		6	163	202	811	1,215	658,920
May		19	7		14	124	164	775	1,103	712,786
June	3	25	1		10	134	173	784	1,130	673,685
Totals	27	267	24	20	156	1,724	2,218	9,843	14,279	8,160,498
Rate per 1,000 per annum	.04	.39265	.0353	.03	.23	2.535			21	

Average population reporting, 680,041, or 46% of total population.

PREVALENCE OF MODIFIED SMALLPOX.

[The State Board of Health has been called upon by health authorities in nearly half the counties of the State to settle a difference of opinion as to whether an eruptive disease prevailing among them was smallpox or something else. Our expert has invariably reported the disease to be smallpox. Inasmuch as it still exists in the State and these calls upon us for diagnoses are likely to continue, we reproduce extracts from an open letter by Dr. James Nevins Hyde, addressed to the Illinois State Board of Health. This letter reviews the epidemic of modified smallpox prevalent in some portions of the United States.]

The prevalent epidemic is one of smallpox (*variola*). To refuse to accept this fact is to be guilty of egregious folly and to commit a dangerous blunder. Fortunately, the symptoms thus far exhibited have been those of modified or mitigated smallpox. The question of chief interest thus awakened concerns chiefly the difference to be established between unmitigated, unmodified smallpox (so called, *variola vera*) and the mild or mitigated form from which so large a number of our people have lately suffered.

The history, symptoms, and career of unmodified smallpox have been so systematically and fully recorded in medical literature that it will be needless in these pages to recount them. They are equally accessible to physicians and to laymen in the pages of the standard treatises devoted to the subject. In this connection it will be needful merely to outline in brief terms the symptoms of the mitigated form of the disease as it now epidemically prevails.

In well-marked cases the malady is usually ushered in by a chill, or by sensations of unusual faintness, or even by milder symptoms. Not often has a history been obtained of long-preceding languor and depression. The chill, when such is experienced, is followed by a rise in temperature, and the records of many of these patients show that 105° F. is often reached. Nausea, either with vomiting or amounting to merely a distressed feeling in the region of the stomach, may be present or be not perceived. Pain in the back (lumbar ache) is relatively frequent. With these symptoms may be experienced headache, dizziness and faintness. Dr. William M. Welch (*Phila. Med. Jour.*, Nov. 18, 1899) has presented an admirable picture of the symptoms noted in the prevalent epidemic, and he adds that in children there is apt to be a tendency to stupor, and that convulsions often occur. In from two to three days there follows either a complete disappearance of all the symptoms of fever, or a very pronounced reduction of the temperature. In a few cases this practically closes the career of the disease. In the

most, however, an eruption promptly appears, first, as a rule, on the exposed portions of the skin, such as the face, including the temples, and the scalp and the neck and hands, which, with greater or less rapidity, at the most in two or three days, becomes distinctly generalized, that is, it spreads over the general surface, involving the head, trunk, and limbs, including the mouth, the palms of the hands, and the soles of the feet. This eruption, usually completely developed in twelve hours, is declared by the production of minute, distinct, isolated, and firm elevations of the surface (papules), which, when compressed between the thumb and finger, produce the impression to the touch of small-sized shot imbedded within the skin. Between the second and third days, on the summit of these shot-like elevations, develop "watery heads" (vesicles), having imprisoned within each a clear fluid (serum, sero-pus), which becomes opaque or cloudy in the course of the third or fourth day. In some of these isolated elevations (papulo-vesicles) there may be evident a distinct puckering or infolding of the top of the head (umbilication). In many cases, however, this symptom is either wholly wanting or but faintly declared at a few points, to be discovered only after careful search of the entire field affected with the rash.

The watery stage of these elevated semi-solid points is more or less rapidly exchanged for that where pus is formed in each, and the resulting pustules in well-marked cases are in the course of the fifth or sixth day rather symmetrically distributed over the surface of the regions already named, the largest and most distended occurring, as a rule, over the exposed parts, such as the face and the hands. At about this time a very distinctly-defined, narrow, reddish blush forms as a margin (halo) about the elevated pock, which persists with greater or less conspicuousness until the crusts which form later are shed. The pustules are large, often as large as small beans; they may seem to "balloon" with matter; they are highly disfiguring.

Thus far in its career the disease corresponds to a degree with the usual course of unmodified smallpox, and in fact can rarely be mistaken for any other malady. It has been shown that even before reaching any one of the stages described, there may be a speedy relief of all symptoms and the patient may not only not have remained in bed, but may have actually undertaken the usual pursuits of his or her vocation in life. The most significant and startling contrast, however, between modified and unmodified smallpox is exhibited when the patient, after reaching the stage described, of complete development of pustules, suddenly ceases to betray any further significant symptoms of smallpox. The pustules dry rapidly into crusts, which are thrown off and leave the skin either somewhat stained at the points where the crusts formed or in nearly its normal condition. Some of the elevated points seem to recede; others with insignificant crusts atop each, when

the latter are removed, resemble in appearance simple warts, from which the head has been torn in the act of scratching. In yet others, semi-solid elevations (papules) of the skin remain, which do not betray the tendency to maturation (suppuration) displayed in other cases.

In the most of instances there is afterward an entire absence of the subsequent manifestations of unmodified smallpox, such as secondary fever, which in the severer forms of the disease is without question of septic origin. The grave consequences of the malady recognized in the nose, the mouth, the lungs, and the viscera, accompanied often by evidences of dangerous implication of the nervous centers, are all wanting. In rare cases, secondary fever has been recognized, but in a mild form.

It is claimed by some physicians that in the prevalent epidemic no scars are left at the sites of eruption, a statement which may be accepted as true for certain cases only. In others, scarring of the face follows, but to a less severe degree than in uncomplicated smallpox. Certainly, in this epidemic the eruptive symptoms are far more superficial than in unmodified smallpox, where the deep-set pustules work such havoc to the deep integument (the corium).

It is somewhat remarkable that the most precise and voluminous writers on the subject of smallpox lay but little stress upon a feature which is regarded by some practitioners as absolutely diagnostic, viz., the odor. Some authors, among whom Moore may be cited as an example, barely refer to such a symptom. Others, such as Graham, who had a large experience of the disease both in this country and abroad, limit themselves to a mention of the intolerable stench emitted, naturally enough, by patients in the pustular stage of severe confluent smallpox. Whether or not specially characteristic, the odor in these instances is both persistent and disgusting. That, however, cases of true variola occur where the average physician is wholly incapable of recognizing any peculiar odor is absolutely certain; and the absence of such a perceptible symptom is to be expected rather in the modified than in the unmodified types of the malady. In the final stages of mycosis fungoides, pemphigus malignus, and even in gunshot wounds of the chest followed by pulmonary gangrene, the feter may be even more offensive than at the close of the career of unmodified smallpox.

The portraits presented by Dr. Welch of the form of mitigated smallpox which has been epidemic in several counties of Pennsylvania, furnish ample proof that the symptoms are those seen by our Illinois observers. The disease is one, and its manifestations are the same. In order to show that smallpox of precisely the same mild symptoms and of exactly similar type as prevalent outside of Illinois, Kentucky, Tennessee, and Pennsylvania, it is only necessary to read the reports made by physicians in these other districts. By way of illustration,

I append the following extract from one of a series of letters sent me by correspondents in Kansas. The author of the following paragraph is a physician of large experience and intelligence, filling a responsible office in his community. He not only gives a suggestive sketch of the epidemic as it has developed among his people, but also describes somewhat in detail the case of his own child watched by him with the anxiety of a father and with the care of a skillful practitioner. His letter describes a case of modified smallpox of the precise type now prevalent in Illinois and other States of the Union :

My boy, nine years old, just recovering, has the following clinical history: Thursday noon, October 19, he came home complaining of headache and dizziness, and did not want to go back to school after dinner. We kept him at home and he lay on the sofa most of the afternoon, but went outdoors for about an hour. He had some fever, but was so slightly ill that I did not use the thermometer. Friday morning he arose and dressed and felt better, but about 11 o'clock had a chill, which was followed by fever, temperature 103° . I thought he was coming down with malarial fever, and so gave him quinine. The next morning his temperature was about 102° , but he felt pretty fair until toward noon, when he complained that his feet were cold. His temperature at about 9 P. M. was $105\frac{1}{2}^{\circ}$. We began bathing him with water of a temperature about 85° , with a little alcohol added, and by 10:30 P. M. he had a temperature of about 103° . He then went to sleep, resting quietly, calling for a drink two or three times during the night. On Friday he vomited several times, and I think once on Saturday. He did not complain of headache or backache, except on Thursday. Sunday morning I discovered about half a dozen red macules on his face (left temple and cheek and right cheek), also several on his forearm and on his back. By night there were thirty or forty spots over his face, arms, and legs, and a few on his body over his chest and abdomen. Those that had appeared in the morning had increased slightly in size, had become papular, and showed a vesicle forming in their center. His temperature Sunday night was 101° F. Monday morning new spots appeared and more of the papules had become vesicles. His temperature was $99\frac{1}{2}^{\circ}$, and he was feeling quite easy. Monday night more spots appeared; temperature, $101\frac{1}{2}^{\circ}$. Tuesday was about like Monday, but spots appeared larger, more raised, and with larger vesicles. By Thursday the vesicles first formed had reached as large a size as they ever attained. There was a slight red areola about them, but when the skin was compressed between the thumb and finger, it was found that the inflammation was confined to the vesicle. The papules would at times feel a trifle "shotty" just before the vesicle formed, but when taken up between the thumb and finger they felt decidedly less so. About the fifth or sixth day after the eruption a dark spot appeared in the center of the vesicle, which gave it an umbilicated appearance. If, however, examined sidewise, it was seen to be not really umbilicated, but only appeared to be so in consequence of the difference in color. This dark spot gradually got larger, and in about six days after the first appearance of the macule it began to turn white in color, then slightly yellow, and on the seventh day a scab began to form, which took about three to five days to drop off. If these vesicles are opened when they begin to turn white, that is, from a water-color to a milk-color, and the contents are squeezed out, there is left an umbilicated spot which scabs over and falls off quicker than those not opened. On the boy's face I opened those on the left side and left untouched those on the right side. This evening one third of the scabs are off of the left side, and only one or two off on the right side. The last spots to appear were on the palms of his hands and the soles of his feet.

Turning to the other cases, of which between two hundred and two hundred and fifty have been seen by himself and his colleagues, this physician writes: "The two to four days (usually three) of fever are uniformly present. Most of the patients complain of some aching in

the head, back, and limbs. A few complain of severe aching. When the rash appears, there is uniformly a decline in the temperature and a feeling of relief. When the vesicles are not opened and pus forms, there is a slight increase of fever from about the seventh to the tenth day. If the vesicles are opened, and washed with some antiseptic lotion, little or no increase is noted. In none of the cases is there any deep or extended inflammation around the spots. They seem to be mostly in the epidermis or just below it, not in the derma. In a few cases there is umbilication, in about one to seven or twenty spots. Most of the spots are rounded throughout. The center of the spots holds the liquid, and by pricking it all the fluid can be easily squeezed out. When the scab is formed, no pus is found under it if it is pulled off. The rash takes from two to five days to come out. It appears on the soft palate, one in eight to fifteen cases. The rash appears less frequently in the axilla and the groin."

The State of Ohio, according to the report made by the Secretary of its Board of Health, Dr. Probst,* in the course of the fourteen months ending with June, 1899, was visited by an epidemic of smallpox, in which occurred 1,882 cases, with fatal results to thirty of those stricken. The description given of the disease, as it was observed by the physicians of the sixty-one cities and villages attacked, corresponds so closely with that of the cases observed in Pennsylvania, Illinois, Missouri, Kansas, and elsewhere that it is impossible not to recognize the identity of the disease wherever it has appeared. In the Ohio towns, as in other localities, the disease was so mild at first that it was erroneously termed, both by physicians and others, "chickenpox" and "impetigo contagiosa." County fairs were held, theatrical amusements attended, and public schools opened, with victims of the disease reely communicating with the unaffected. The vaccinated were mostly exempt, but a few of the protected suffered. The preliminary fever was slight, the eruption superficial, and the eruptive period brief and irregular of career; secondary fever was rare, and pitting was exceptional. A few malignant purpuric and hemorrhagic cases were observed, some of these swelling the list of fatal attacks.

The patients affected with this type of mitigated smallpox in Missouri (more particularly in St. Louis) were affected in precisely the same manner as those observed elsewhere. The first cases seen were described as "chickenpox," but later the physicians in attendance freely acknowledged their error.

The objections raised against considering these and yet milder types of the prevalent disease as smallpox in a modified form can not be supported by fact or well-founded argument. They may, however, be briefly noticed.

* Journal of the Amer. Med. Ass'n, Dec. 23, 1899.

First, the objection is urged that the watery heads (vesicles) seen in the affected patients are not puckered (umbilicated) as in the types of smallpox described in the text-books. To this it is responded that in every epidemic the puckering, or better, fluting, of the apex of the fluid-containing elevations of the skin may be wholly or in part wanting. At times the entire body-surface is practically covered with these small elevations of the outer skin filled with a cloudy fluid, each as distinctly puckered (crenated) as if the center of the roof were tied down by a centrally inserted thread. At other times one searches in vain for this interesting feature, of which it may be remarked in passing that it is not, as has been generally taught, seen only in smallpox. Other pustular diseases exhibit the same feature at times, though few to the same extent as variola. This symptom has been fairly well marked in a few patients seen by me in the present epidemic. Dr. Welch has had a similar experience. In the most cases, however, it has not been recognized.

A second objection is based not merely on the universal mildness of the symptoms in patients of the class described above, but on an almost entire absence of symptoms in the case of men and women who have been discovered on the streets pursuing their usual vocation. There is nothing novel and extraordinary in these histories. They are, however, sufficiently familiar to physicians who have had a large experience with smallpox. The lassitude and discomfort experienced by some sufferers is either ignored or absent in others, particularly in those of a vigorous constitution and of adult years. The eruptive symptoms in these cases may be limited to a few and even to two "pocks" on the body-surface. The verdict of smallpox which has been properly made in such instances has often excited the derision of uninformed persons. But the published and unrecorded experience of groups of these phenomena is too well established to be ignored. Smallpox, indeed, may occur without producing any eruption whatever (*variolo sine variolis*), the verification of this fact being best made in the pregnant woman, who after a chill and fever without any skin-symptoms whatever, afterward brings into the world a new-born child covered with pustules of the confluent disease.

A third objection is presented on the ground of the condition of the patients affected with the disease now epidemic when examined with reference to cowpox (*vaccinia*). It is alleged that in the present epidemic the vaccinated and the unvaccinated suffer alike. This is an important allegation which demands a word or two of explanation.

Vaccination is a method by which protection is secured against smallpox by introducing into the human system another and different disease. This disease, cowpox, is now well known to be different from the malady produced by the intentional production of smallpox in

cows, though there is remarkable correspondence between the two, the differences proving that the two diseases, if not identical, are certainly allied. Vaccination is a very remarkable and satisfactory method of securing immunity from smallpox, but it is far from being a perfect method. No ingenuity of man has yet sufficed to create absolute safeguards against the manifold dangers to human life. The strongest iron steamship that can be constructed may be crushed like an egg-shell under the blow of one of the largest billows in an Atlantic tempest. In the gravest of smallpox epidemics, for example in the form known as hemorrhagic variola ("black measles"), the vaccinated and unvaccinated suffer—not, it is true, in the same degree, but both suffer. I have seen a man die of confluent smallpox with two excellent scars from successful vaccination on the arm. Of the cases seen by me in the towns of the State of Illinois, four out of six of the patients have exhibited no signs of vaccination and have been unable to give any record of having been vaccinated.

Now, it is not true, that on the whole the protected and unprotected suffer alike in the present crisis, but even when the disease is mitigated, an epidemic influence will explain the occurrence of smallpox in the vaccinated. It must be remembered that while the symptoms under consideration are extraordinarily mild when compared with the frightful scourge of the unmitigated disease, still the epidemic influence has been extensive and many patients, even though not dying, have suffered enormously. Some of them have been well-nigh covered with pustules, many have endured high fever. Fortunately, the physicians interested in the study of these cases find them of special interest and worthy of careful attention, but many of the victims of the prevailing epidemic have an aspect which proves in the highest degree loathsome and suggestive of horror to persons unfamiliar with the disease, who would probably, if occasion offered, flee affrighted from the presence of the sufferer. So, then, although the symptoms are unquestionably mitigated, still an epidemic actually prevails and one productive of serious, even if not always fatal, mischief. This epidemic influence is a potent factor. It is an influence exerted generally in any community attacked, so that the susceptible suffer as they would not if a sporadic case, for example, of smallpox were by accident introduced among them. The French have a proverb which runs: "At night all cats are gray." In an epidemic of smallpox the shades of difference between the protected and unprotected often appear to vanish. It is under these epidemic influences that men and women have several successive attacks of smallpox, one attack not furnishing immunity against another. These cases are rare, but they do occur and are sufficiently suggestive. I have seen a physician in a severe variolous epidemic suffer from an attack of ophthalmia whenever he was introduced into the chamber of

a sufferer. At these times the unprotected, in whose persons at other seasons it is difficult to insure vaccination, receive the virus with relative ease and with excellent results. Hence, if in a meager proportion the vaccinated suffer at the present time, it is not an argument against the prevalence of smallpox, it is rather a strong proof in favor of the prevalence of a smallpox epidemic, even if the symptoms displayed in the most of cases are mild or modified.

The same explanation is to be made in the cases where it is alleged vaccination has been successfully performed of patients convalescing from this modified smallpox. A few instances of this exception to the rule have been adduced as triumphant demonstrations of the fact that no smallpox had previously existed. But such alleged proof is absolutely valueless and not in the slightest degree subversive of the established diagnosis. The facts are all explicable by the prevalence of the epidemic influence in smallpox, and point conclusively to the presence of such a disease and to none other. I have with qualified success vaccinated after modified variola; there is no reason why one or even a series of patients might not exhibit some vaccination-symptoms after suffering from smallpox in an epidemic form. It is to be remembered that a much severer test is made of the capacity of the patient when a virus is brought into actual contact with his body-fluids (as in vaccination) than when he is simply exposed through the medium of the atmosphere to the volatile contagion of a disease transmissible in that way. What physician would dare, after the most successful vaccination of a patient at multiple points, to scarify the arm of that patient, and to attempt thus to introduce the virus of smallpox? He would be held criminally liable for the result, and that result in the time of a varicellous epidemic might be the transmission of smallpox to the person subjected to the experiment. The same is true of vaccination after modified variola when an epidemic is in progress. Brouardel has reported two consecutive attacks of smallpox in one patient, and in a blood relative of the same person six successful vaccinations at intervals of about six months. To sum up, then: In seasons of epidemic influence smallpox may occur several times in the same person; smallpox may occur in severe types in persons vaccinated; vaccinated persons may be revaccinated effectively at brief intervals, and vaccination may be followed by some results in persons convalescent from smallpox.

These facts being granted, it is nevertheless true that the immunity secured by vaccination is incalculably great, and it may be well doubted if really typical results can be secured by the vaccination of persons convalescent from the disease now prevalent. It will be remembered that when referring to my vaccinations after modified variola, I did not say that *typical* results had been produced. An expert's description of the typical results of vaccination would probably differ widely from

that of the inexperienced. Personally, I should view with great suspicion any report of typical results (scar foveation, areola, vaccinal fever, etc.) occurring after vaccination of the victims of the prevalent epidemic.

Vaccination after the onset of smallpox, and when practiced in the early stages of that disease, is commonly effective, and if not protective in the way of aborting the disease, has a high value in modifying its severity. Even as recently as the current year, Kotowtschikoff* has discovered that in the suppurative stages of smallpox successes may be secured by vaccinating as often as twice in the day; and he has advocated this as a means of favorably influencing the course of the disease. But vaccination during the period of convalescence from smallpox, whether the latter be modified or unmodified, is typically successful only as a matter of very great rarity. The symptoms usually evoked by such attempts at vaccination are either the production of spurious and abortive pocks, or, what is more common, the production of vesicles and pustules wholly unconnected with the vaccinal process.† It is an established fact that after the occurrence of smallpox the skin is left in a very sensitive, morbid state. It is the frequent seat of pustules, abscesses, carbuncles, and other pus-containing symptoms of the surface, and these are specially apt to be provoked where the needle of the vaccinator has been employed.

Turning now to the diagnoses erroneously made of the disease under discussion, many of its victims have been reported to suffer from chickenpox (varicella). An error here can scarcely be made by a conscientious and careful observer. Let it be thoroughly understood at the outset that a patient affected with modified smallpox may have milder symptoms than another suffering from chickenpox. The differences between these wholly distinct affections are not exclusively those of severity. We have seen that a man with modified smallpox may exhibit perhaps but two pocks on his body, and even may be able to attend to his regular duties. While chickenpox is universally and justly recognized as a very much milder disease than smallpox, a child affected with a severe form of varicella may really be very uncomfortable for two days with the body extensively covered with the special symptoms of that disease. A man with a lion's cub for a pet would not dream of rating it below a fully grown German boar-hound because the cub was the smaller of the two beasts. He would know that in time the lion will be able to slay the big dog with a single blow of its powerful paw. This is quite suggestive of the difference between what might be called figuratively

* Jour. of the Amer. Med. Ass'n, Dec. 23, 1899.

† "Smallpox undoubtedly exhausts the susceptibility to the vaccine disease. There is, however, considerable virus in use at the present time which is sure to cause a sore arm even in immune persons. In testing the immunity of individuals who are thought to have had smallpox, it is important, in performing vaccination for this purpose, to be sure that the disease which follows is genuine vaccinia."—WILLIAM M. WELCH, to the Illinois State Board of Health.

"baby-smallpox" and chickenpox. The former may extend and develop until it is competent to destroy human life at the rate of the most fearful scourges of the human race. But no degree of development or extension can ever convert chickenpox into anything more than a trivial affection.

Chickenpox* (varicella) is ushered in, as a rule, by no pains in the loins, nor by nausea or vomiting, nor by a high range of bodily temperature for two or three days preceding the rash. At the most, there are but a few hours of mild fever in which the thermometer practically never rises as high as 105° F., and the eruptive symptoms speedily appear, first as slightly reddened blotches scarcely larger than half a pea upon the surface, which rapidly become exceedingly superficial "watery heads" (vesicles) without the previous occurrence, at the site of each, of elevated, firm, shot-like masses in the skin underlying each point. A feature of distinguishing importance in this malady is the rapid occurrence of the eruption over the protected rather than, as in smallpox, over the unprotected surface of the body, and in successive crops, the patient at the moment of first examination, for example, exhibiting large numbers of blister-like "watery heads" (vesicles) over the back or on the chest, with a relatively smaller number on the face. At the height of the process a finger-nail can practically erase most of the evidences of trouble at any affected point. The velvety elevations are never puckered on the roof-wall of the single chamber containing the clear or opalescent fluid (serum); the crusts which form subsequently are thin and friable; the vesicles never develop into unmistakable pustules; at the worst, in from two to four days, the eruption and the disease are practically at an end. From first to last there is no suggestion of the career of even the most modified smallpox in the symptoms here enumerated. The mild fever persists during the eruptive stage, and at the outset of such a stage does not vanish or diminish, as in smallpox. Second attacks are rare; one attack confers no immunity from smallpox. Here the vaccinated and the unvaccinated suffer alike. Hence, it follows that any patient exhibiting vesicles surmounting firm elevations of the surface of the skin, developing first on the exposed surfaces of the body, appearing on the third day after a high fever, with lumbar pain and nausea, and coinciding with marked fall of the febrile temperature, is almost certainly smitten with smallpox and not with chickenpox.

One might almost wish that the late Tilbury Fox had never introduced his "impetigo contagiosa" to the notice of the profession, seeing that in connection with smallpox more sins of diagnosis may be laid to its door than in the case of any other disease in the nomenclature. A

* "Varicella is essentially a disease of early life, occurring almost exclusively in infants and young children."—JAMES NEVINS HYDE, in Pepper's System of Medicine.

few considerations, however, suffice to stamp its individuality. The "watery heads" (vesicles) which appear with relative suddenness in this disorder and which are not only superficial but which enlarge by lateral rather than by deep extension, are absolutely the result of infection with pus-organisms at every point where the symptoms develop. With this simple fact in view all errors of diagnosis may be avoided. Impetigo contagiosa is for the most part what may be termed a "finger-nail filth" disease of early life, chiefly of children or of young adults. The finger-nails, charged with the effective elements of the disease, convey these sparsely, not plentifully, to accessible portions of the body, the face (lips, nose, ears, cheeks), the hands, the knees, etc. The later "stuck-on," friable, readily removed, superficially attached crusts, never implanted on a firm base, are justly regarded as characteristic. In our clinical experience it is rare that more than a score of these individual symptoms may be counted in any single person. Our English brethren report cases in which the disease is widely generalized; I have rarely, very rarely, so seen it. When fever co-exists, as reported, it is unquestionably the result of the irritation produced in the skin by the purulent germs. No patient displaying numerous pustules symmetrically developed and seated on a firm base, after the subsidence of high fever, is suffering from any form of impetigo.

The distinction between a patient suffering from a generalized eruption of the pustules of syphilis and another exhibiting the pustules of smallpox, is chiefly interesting as an academic study, inasmuch as not rarely, in the great St. Louis Hospital of Paris, and occasionally at my own clinic, patients are found standing in the line of applicants for relief, one showing smallpox pustules, and another next or near exhibiting the pustular symptoms of syphilis. Both, it may be observed, may have a slight rise in temperature.

But it is to be remembered that the generalized pustular rash of syphilis is really rare in America, seeing that the eruption finds amplest expression only in the persons of the extremely filthy, the victims of debauchery, drink, and poverty. It is almost never recognized among the well-to-do, the cleanly, the comfortably housed, and the warmly clad; however, often these latter may suffer from other symptoms of the disease. Of course, in any doubtful case, the history of syphilitic infection and the presence of other manifestations of the malady (mucous patches, alopecia, enlarged glands, traces of initial chancre) point to the truth. In syphilis the much slower evolution of the symptoms (time is a valuable aid to the physician in the diagnosis of smallpox), the obvious tendency of the pustules to cluster about the sides of the nose, about the cleft of the anus, about the ears, and near the line of the hairs at the brow, the peculiarly dirty looking crusts which form at the apex of the semi-solid elevations of the surface, the failure of such distinct

isolation of the individual pustules as occurs in all but confluent variola, are important diagnostic features. The patient with pustules of smallpox generally distributed over his body is usually found in bed. The syphilitic subject commonly makes shift to present himself at the out-patient department of a dispensary or hospital; in other words, the one readily, the other only with difficulty, tolerates his disease.

In view of thoroughly characteristic features of even modified variola, it is almost superfluous to consider in detail the differences between its symptoms and those of eczema, acne, herpes, pemphigus, and the medicinal rashes. None of these is suddenly displayed after three days of fever and a rapid decline of temperature, in symmetrical development, attacking first the exposed surfaces of the body. The simple form of herpes is generally seen clustered about the orifices of the body; the "shingles" variety (herpes zoster) is well-nigh invariably unilateral in disposition. Acne in pustular development affects the face, it is true, but is wholly unaccompanied by fever, and in its manifestation far outlasts all the symptoms of smallpox. The doubtful physician here, as so often when attempting to distinguish between similar affections, is aided by the passage of time. Pemphigus, in its manifold expressions, is not only a disorder, the skin-symptoms of which outlast, as a rule, the brief career of the eruptive features of smallpox, but it is one in which the blister-like elevations of the surface (blebs, bullæ) are, as a rule, larger, and are filled with a fluid undergoing less rapidly than in smallpox the change to pure pus. With respect to the medicinal rashes, some of which, without question, are liable to be mistaken for the symptoms of smallpox, it is to be remembered that the withdrawal of the offending medicament is always followed by immediate amelioration of the symptoms in the skin. As in the other cases, the absence of fever and of a history of fever is to be considered in connection with the fact that very rarely indeed, if ever, do these rashes undergo changes consecutively from one type of eruption to another, firm elevations of the skin-surface, for example, changing to those exhibiting "watery heads" (vesicles) at the apex of the elevation; and these latter in turn changing to well-developed pustules. For the most part, the medicinal rashes develop in a single type, blushes, pustules, etc., appearing as such with promptness and not changing until the withdrawal of the efficient cause of the malady.

The severe and generally intolerable itching that distinguishes eczema need never be confounded with the excessive burning pain experienced by patients with a smallpox eruption over the face. A simple diagnostic difference will here suffice for the inexpert. There is almost never scratching of the affected part in smallpox, but that is a rare form of eczema in which at one time or another there is not only scratching, but also unmistakable evidence of scratching in the torn and abraded integuments.

It seems scarcely necessary in this connection to call attention to the fact that even the mildest epidemic of smallpox may, under special circumstances, give rise to the most malignant cases of the disease. It has been already shown that the mitigation of the malady has been largely produced by the universal vaccination and revaccination of generations of the American people. Still it should not be forgotten that all the aggravating factors in the production of an epidemic are not yet wholly revealed to us. It has been supposed that certain climatic conditions have exerted some influence in one direction or the other. This, at least, is certain, that the introduction of even a single case of mitigated smallpox in a community which has been unvaccinated, has been again and again the fruitful source of one of the most fearful scourges that has ever afflicted the human family. Who, for example, would dare to introduce one of the victims of the present mild epidemic into such a community as that, for instance, furnished by the unvaccinated natives of Samoa? The consequences would certainly prove more formidable than if they had been subjected to a rain of the explosive missiles which have been forbidden lately by the Peace Conference at The Hague. It follows that only the most skillful and energetic measures should be taken to prevent the spread of the present epidemic, even in its mild form, as no living man can predict what type it may assume on the morrow or the following week.

Under date of December 7, 1899, the Surgeon-General of the U. S. Marine Hospital Service writes to the Illinois State Board of Health, as follows: "I am aware of no disease called Cuban itch which could be mistaken for smallpox. There are several erythematous eruptions in Cuba called Cuban itch, but they are prickly heat or ringworm."

The conclusions which one is justified in drawing from the facts here set forth are as old as the days of Jenner and as imperative as in the year when the clear-sighted von Hebra wrote his chapters on smallpox so lucidly and emphatically that to-day they present a true picture as well of the virus as of its most efficient antidote: Vaccination and revaccination of everybody—child, adult, foreigner, native-born—there is no other safe reliance for the present and the future. By the methods known and found most effective in the care of the public health the epidemic must be stamped out and the disease at last completely eradicated. We may well doubt whether a smallpox epidemic, even of mild character, could prevail in any of the smaller communities in England and Germany, where vaccination is so generally and efficiently enforced. It is said that the modern tourist, if he could be transported to the streets of London in the last century, would be immensely astonished, not so much by the dress of the people, by the aspect of the shops, and by the odd-looking vehicles on the streets, as by the extraordinary number of pock-marked faces on every hand.

At last the English people have learned their lesson and learned it well. They have had a bitter experience of the devastation which smallpox is capable of working among their kindred, whether in the hovel or in the palace. They have mourned the loss of a gracious sovereign smitten with the pestilence on the very throne of the kingdom. While we may not wish to follow them in all matters, they have set us a worthy example in the methods by which they have buttressed their bulwarks of immunity. The germs of this pestilence are powerless against the army of their humble villagers and peasantry, ranks upon ranks of whom bear on the arms of each no fewer than four and often as many as six and eight scars of effective vaccination. Vaccination should be the sole passport of entrance to the public schools, to the voters' booth, to the box of the jurymen, and to every position of duty, privilege, or honor granted either by the State or by the Nation.

I am, with great respect, your obedient servant,

JAMES NEVINS HYDE.

CHICAGO, December 22, 1899.

BIENNIAL REPORT

OF THE

STATE BOARD OF PRISON DIRECTORS

OF THE

STATE OF CALIFORNIA

FOR THE

FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS.

1900—1901 AND 1901—1902.



SACRAMENTO:

W. W. SHANNON, : : : SUPERINTENDENT STATE PRINTING.
1903.

STATE BOARD OF PRISON DIRECTORS.

[illegible]

OFFICERS OF SAN QUENTIN PRISON.

[illegible]

OFFICERS OF FOLSOM PRISON.

[illegible]

BIENNIAL REPORT

OF THE

STATE BOARD OF PRISON DIRECTORS.

To His Excellency HENRY T. GAGE, Governor of the State of California:

DEAR SIR: As members of the State Board of Prison Directors, we have the honor herewith to present our biennial report for the two fiscal years ending June 30, 1902, together with the report of the Wardens and Clerks of the respective prisons under our charge. These reports show in detail the financial condition and operation of the prisons, and contain other statistical information, which obviates the necessity of our going into the same matters or making a more extended report to you at this time.

As will be observed from a perusal of the reports, both prisons are in excellent financial condition, and the best of discipline among the prisoners is preserved.

Two years ago the reports of the officers at San Quentin Prison showed that a large sum of money had been saved during the two previous years from the sale of grain bags, and their reports this year show the same thing to have continued, and we believe, as expressed to you in our report at that time, that the manufacture of grain bags at the prison at San Quentin has been of vast benefit to the farmers of this State, not only in preserving the price of all grain bags at the lowest possible figure, but also in preventing combination among the dealers.

It is our pleasure to report again that the opium traffic at San Quentin is still under control, and has in fact been practically completely destroyed, and during the two years last past there has been no opium to be found in San Quentin Prison.

Many improvements have been made at Folsom Prison, and both prisons have been run most economically by the Wardens.

Two years ago your attention was called in our report to the necessity for added accommodations at Folsom. Attention has been directed to this by the reports of your Board for many years in the past, and we now renew the recommendation. As heretofore stated, at Folsom Prison additional prison buildings could be constructed at practically small

expense, on account of our having at hand a large command of building material which can be handled and taken out by virtue of the water power at our disposal, at comparatively small expense. This is an absolute necessity, for we have not sufficient prison room to segregate the prisoners and to separate the young from the old and more hardened criminals.

We are working now under what is known as the "Congregate System," where young and old, good and bad, are all huddled together, without the possibility of keeping them apart at any time, even when they are sent to their cells, for we are so cramped for room that from two to four and six occupy each cell. It is impossible to keep the vicious from having their influence over younger men, or to place the quarrelsome and dangerous convicts by themselves.

Your Board has frequently urged in its reports the necessity of a separate institution for the detention and care of insane criminals, and to-day this is one of the crying needs of our State Prisons. We are compelled now to keep the unfortunate insane at the prisons, where they can not have proper medical treatment, or to send them to an insane asylum, and it must be apparent that an insane asylum is not a proper place for the care of these cases, and we reiterate what we said in our previous report concerning this: "In some cases insanity may be feigned and the prisoner may escape from the fact that he is not watched as closely as a prisoner is; nor is it right that insane patients should be compelled to associate with the criminal insane." At the prisons at the present time there are no accommodations whatever, necessary and proper to care for those who may become insane; there should be a separate institution for that purpose, and we respectfully recommend that you bring this matter before the Legislature and urge that some better means be provided for the care of the criminal insane. We feel that if the Legislature fully understood the necessity of this we need not be repeatedly calling attention to it, because its merits would secure for it very prompt attention.

Two years ago we recommended the consideration of what is known as the "indeterminate sentence." We again feel that this should be called to the attention of the Legislature, that its merits should be considered, and if the operation of it be found all that is claimed for it by its advocates, then it should be adopted as a part of the penal laws of this State.

In the matter of paroles, we would say that the Board has been very conservative in the exercise of its power, but are pleased to report that in some cases it has been the means of reforming those who may have otherwise led vicious and abandoned lives.

At Folsom Prison we have been compelled to purchase a great deal of firewood and coal, in order to furnish all the power required at the

prison. This could have been obviated by the purchase of a new air-compressor, which would cost in the neighborhood of \$8,000, and would be a very economic measure in view of the fact of the large amount paid out yearly for firewood and coal—from \$8 to \$10 per day. We, therefore, most respectfully suggest that a recommendation be made to the Legislature for an appropriation sufficient to enable us to purchase an air-compressor for the use of the Folsom Prison.

At San Quentin Prison, the jute mill is now operated by electric power, and we are pleased to state that the change has been advantageous to the State.

Since our last report we have had constructed at Folsom Prison a sewage plant, whereby all the sewage from the prison is pumped onto the farm and there distributed. Thus far this has worked very well indeed and has given entire satisfaction. The only question is the care of the sewage after it has been pumped on the land, but with some additional piping we believe that this could be accomplished without any danger whatever.

The officers of both prisons have been faithful in their attention to duties, and we are pleased to report that most perfect discipline prevails in both prisons.

In conclusion, we desire to express our appreciation of the kind consideration which you have always shown to us in the performance of our official duties, and the very deep interest which you have taken in all the penal institutions of the State.

Respectfully submitted.

ROBERT T. DEVLIN.
W. R. PORTER.
DON RAY.
R. M. FITZGERALD.

REPORT OF THE WARDEN
OF THE
STATE PRISON AT SAN QUENTIN, CALIFORNIA.

FOR THE YEAR ENDING JUNE 30, 1901.

WARDEN'S REPORT.

SAN QUENTIN, CAL., July 1, 1901.

To the Honorable the State Board of Prison Directors:

GENTLEMEN: I have the honor to submit herewith my annual report for the fifty-second fiscal year, ending June 30, 1901, including the reports of the Captain of the Yard, the Physician, and the Resident Chaplain, containing complete statistical information in regard to the prisoners, and showing in detail the operations of the institution.

I herewith also attach the report of the Acting Clerk, setting forth the financial transactions of the prison for the year.

The only strictly gainful industry engaged in at this prison being the manufacture of jute goods, I also submit in complete detail the following statement of the performance of the Jute Mill for the fiscal year just closed:

PERFORMANCE OF JUTE MILL FOR THE YEAR ENDING JUNE 30, 1901.

RAW JUTE.

Net amount used during the year	3,768,058 lbs.
Goods manufactured during the year	3,582,079 lbs.
Loss in manufacture	185,979 lbs.
Or $4\frac{238}{1000}$ per cent.	
Raw jute on hand July 1, 1901.....	5,397 bales.
Average cost of raw jute for the year.....	3.41 cents.

EXPENSES.

Spinning and weaving, 45-inch burlap	1.458 cent per yard.
Sewing	0.015 cent per bag.
Baling.....	0.058 cent per bag.
Shipping	0.060 cent per bag.

COST OF PRODUCT.

Burlap, 45-inch	3.860 cents per yard.
Grain bags, 22 x 36	4.510 cents per bag.

OPERATING EXPENSES AND REVENUE.

Total expense	\$290,053 28
Value of supplies on hand, as per inventory.....	83,792 96
Net operating expenses for the year.....	\$206,260 32
Net value of goods sold for the year.....	248,702 52

NET PROFIT.

On goods manufactured and sold during the year	<u>\$43,611 57</u>
--	--------------------

For detail, see statements following.

MANUFACTURING STATEMENT OF JUTE DEPARTMENT FOR THE FISCAL YEAR ENDING JUNE 30, 1901.

Raw jute on hand July 1, 1900.....	6,118 bales.	
Raw jute received during the year.....	8,703 bales.	
Total handled.....	14,821 bales.	
Deduct amount on hand June 30, 1901.....	5,397 bales.	
	9,424 bales.	
9,424 bales, at 400 lbs. per bale equals.....		3,769,600 lbs.
Less amount rejected account damage.....		1,387 lbs.
		3,768,213 lbs.
Deduct increase in amount of raw jute in process of manufac- ture on June 30, 1901.....	110,935 lbs.	
Over amount on July 1, 1900.....	110,780 lbs.	
		155 lbs.
Net amount of raw jute consumed.....		3,768,058 lbs.

GOODS MANUFACTURED.

50,510 cuts 45-inch burlap at 97.7 equals 4,934,827 yds., at $11\frac{22}{100}$ oz.....	3,460,535 lbs.	
3-ply twine sold and on hand.....	5,982 lbs.	
8-ply twine sold and on hand.....	6,382 lbs.	
Twine used in sewing 3,246,180 bags, at $\frac{1}{4}$ oz.....	50,706 lbs.	
Twine used in sewing 1,187,400 bags, at $\frac{35}{100}$ oz.....	25,974 lbs.	
Twine used in sewing 4,000 bags, at $\frac{1}{4}$ oz.....	63 lbs.	
Twine used in baling 8,871 bales, at $4\frac{22}{100}$ oz.....	2,672 lbs.	
Twine waste sold and on hand.....	3,182 lbs.	
Jute rope used in baling.....	26,583 lbs.	
		3,582,079 lbs.
Loss in manufacturing 3,768,058 lbs. of jute.....		185,979 lbs.
Equal to 4.936%.		

EXPENSES OF PRODUCTION AND COST PRICE OF MANUFACTURED GOODS, FOR THE YEAR ENDING JUNE 30, 1901.

SPINNING AND WEAVING EXPENSES.

Coal.....	\$23,581 61	
Jute oil.....	3,944 96	
Sizing.....	1,711 40	
Rope.....	514 56	
Machine oil and engine supplies.....	766 35	
Tools and repairs.....	15,335 19	
Salaries.....	28,659 16	
Water.....	811 64	
Miscellaneous.....	413 44	
		\$75,738 31
Less expenses incurred in sewing of bags and repairing of sewing machines, estimated at 5%.....		3,786 92
Net expense of spinning and weaving 4,934,827 yds. of cloth.....		\$71,951 39
Or 1.458 cent per yard.		

SEWING EXPENSES.

Percentage of expenses, as above.....	\$3,786 92	
76,743 lbs. of jute twine, at $3\frac{3}{4}$ cents.....	2,877 86	
Total expense of sewing 4,437,580 bags.....		\$6,664 78
Or 0.15 cent per bag.		

BALING EXPENSES.

4½ yds. 45-inch burlap, at 3.85 cents per yard	17.37 cents.
4.82 oz. twine, at 3¾ cents per pound	1.13 cents.
3 lbs. jute rope, at 3.41 cents per pound	10.23 cents.
Total per bale	28.73 cents.
Or 0.0575 cent per bag.	

SHIPPING EXPENSES.

Drayage, credited to Stock Department	5 cents.
Freight, steamer to San Francisco	25 cents.
Total per bale	30 cents.
Or 0.06 cent per bag.	

COST PRICE OF 45-INCH BURLAP.

11.22 oz. jute, at 3.41 cents per lb.	2.39 cents.
4.936% loss in manufacture	0.01 cent.
Cost of spinning and weaving	1.46 cents.
Total cost per yard	3.86 cents.

COST PRICE OF 22 X 36 GRAIN BAGS.

39½ inches 45-inch burlap, at 3.86 cents	4.24 cents.
Sewing expenses	0.15 cent.
Baling and shipping expenses	0.12 cent.
Total cost per bag	4.51 cents.

TOTAL OPERATING COST OF JUTE MILL FOR THE YEAR ENDING
JUNE 30, 1901.

Total expenses, including value of supplies on hand, July 1, 1900:

Raw jute	\$200,939 13
Raw jute in process of manufacture	4,324 50
Coal	23,581 61
Jute oil	4,247 21
Sizing	1,779 16
Rope	681 11
Machine oil and engine supplies	830 96
Tools and repairs	21,729 86
Salaries	28,659 16
Water	811 64
Miscellaneous	426 29
Freight on manufactured goods	2,042 65
	<u>\$290,053 28</u>

Less value of supplies on hand, as per inventory, June 30, 1901:

Raw jute	\$72,384 56
Raw jute in process of manufacture	4,399 71
Jute oil	302 25
Sizing	67 76
Rope	166 55
Machine oil and engine supplies	64 61
Tools and repairs	6,394 67
Miscellaneous	12 85
	<u>83,792 96</u>

Net operating cost for the year

Divided as follows:

Value of raw jute used	\$128,554 57
Less increase in value of jute in process of manufacture	75 21
Net value of raw jute used	<u>\$128,479 36</u>
Freight on manufactured goods	2,042 65
Expenses of spinning, weaving, etc.	75,738 31
	<u>\$206,260 32</u>

GOODS SOLD DURING THE YEAR ENDING JUNE 30, 1901.

601,180 22 x 36 grain bags sold prior to and not manufactured July 1, 1900.....	@ 5.65c.	\$33,966 67
4,814,250 22 x 36 bags.....	5.64c.	271,523 70
45,800 22 x 36 bags.....	5.65c.	2,587 70
6,000 imperfect bags.....	5.00c.	300 00
7,305 lbs. 8-ply twine.....	5.50c.	401 80
4,211 lbs. 3-ply twine.....	7.00c.	294 77
2,641 lbs. waste twine.....	1.50c.	39 62
3,518 yds. 45-inch burlap.....	5.00c.	175 90
232 yds. 32-inch burlap.....	8.00c.	18 55
Waste.....	-----	20 42

Issued to Other Departments.

493 yds. 45-inch burlap.....	@ 5.00c.	24 65
20 yds. 32-inch burlap.....	8.00c.	1 60
66 lbs. waste twine.....	1.50c.	1 00
		<u>\$309,356 33</u>
Less value of—		
1,073,650 22 x 36 bags.....	@ 5.64c.	\$60,553 86
2,000 imperfect bags.....	5.00c.	100 00
		<u>60,653 86</u>
(Same sold prior to and not manufactured June 30, 1901.)		
Net sales during the year.....		<u>\$248,702 52</u>

PROFIT AND LOSS ACCOUNT.

Sales of manufactured goods.....	\$248,702 52
Value of goods on hand June 30, 1901, at cost price.....	5,592 22
Suspense account (unadjusted difference).....	2 57
	<u>\$254,297 31</u>
Deduct—	
Net operating expenses.....	\$206,260 32
Value of goods on hand July 1, 1900.....	3,702 87
Balances written back, deposits forfeited.....	722 55
	<u>210,685 74</u>
Net profit on goods sold during year.....	\$43,611 57
Value of goods on hand June 30, 1901.....	\$5,592 22
Suspense account.....	2 57
	<u>\$5,594 79</u>
Value of goods on hand July 1, 1900.....	\$3,702 87
Balances written back.....	722 55
	<u>4,425 42</u>
	<u>\$1,169 37</u>
Net sales.....	\$248,702 52
Net expenses.....	206,260 32
	<u>\$42,442 20</u>
Add.....	1,169 37
Net profit.....	<u>\$43,611 57</u>
Product at mill $8\frac{1}{2}$ per cent greater than in any other year.	

The steadily increasing demand for San Quentin grain bags, and the fact that we have not thus far this season had a single complaint as to the quality of our product, would indicate that the increased output, as shown by the above statement, has not been secured at the expense of the quality of our goods.

Our books show that we have already entered enough orders to exhaust the probable output of the Jute Mill up to October 1, 1901, or fully one month later than in any previous fiscal year.

The mill has run almost without a break of any kind during the year, and this fact, together with such an enormous output of a manifestly superior quality—resulting in an increased profit to the State of many thousands of dollars—is, I think, a sufficient testimonial as to the ability and faithfulness of those connected with the mill.

IMPROVEMENTS.

Acting upon the authority granted to me by your Honorable Board, I began in the early part of the year, the erection of a new, substantial, and commodious guard post opposite the officers and guards' building, and the same has long since been completed and occupied.

The necessity having long existed for additional places of residence for the accommodation of the married employes of the institution, under your authority I have caused to be erected one five-room cottage, which is finished and now occupied; another is in course of construction, and I have in contemplation the erection of others. These cottages will be substantial in character, and at the same time will be built on economical and convenient lines.

The necessity for repairing the road leading to the prison from Green Brae has long been apparent, which work has now been going on for some time, and we expect to have the road in excellent shape by the beginning of the rainy season.

Other improvements of minor importance have received the requisite share of our time and attention, and still others are under contemplation as needed and when opportunity offers for the execution of my plans.

ELECTRIC LIGHT PLANT.

I am daily reminded of the great necessity for more and better lights for this prison, and trust that you will bear with me if I appear overzealous or importunate in again earnestly urging the favorable consideration of your Board in this matter, as our present system of lighting—both as to character and extent—is entirely inadequate to our actual needs, the few arc lights with which we are supplied being very unreliable and unsatisfactory.

The sum expended by us for lights each year (nearly \$7,000) should secure an abundance of light for all purposes in and about the institution if, as suggested in a previous report, provisions were made for the installation here of an electric lighting plant of sufficient size to meet our requirements, the cost of which, as per estimate previously submitted to you, would not exceed \$15,000.

I trust, therefore, that at the earliest opportunity steps will be taken

by your Honorable Board to provide such facilities for lighting the institution and grounds as, under the circumstances, you deem suitable and proper.

WAREHOUSE ROOM.

I take this opportunity of again calling the attention of your honorable body to the growing need for more warehouse room at this prison for storing grain bags and raw jute, especially in view of the fact that our output of bags has been materially increased and the consequent necessity of purchasing a considerably larger amount of jute than has been customary heretofore, and I would earnestly recommend your favorable consideration of this matter at an early date, to the end that we may erect a suitable warehouse in time to be available for next season's business.

DISCIPLINE.

It is with considerable gratification that I am able to report that the same excellent discipline among the prisoners has been maintained during the past year as in the previous year of my administration. In fact, the utter absence of opium in any form has had a most pleasing effect upon the appearance, the general health, and the behavior of the inmates.

UNSUCCESSFUL ATTEMPTS TO ESCAPE.

Three of our prisoners attempted to escape during the year, none of whom, however, were successful. Two of them, who attempted under cover of darkness to escape together, were landed inside the walls again within twenty minutes after the alarm had been given, but not until one of them had received a charge of buckshot from the gun of one of the night-guards, from the effects of which the prisoner afterward recovered. The third man was captured, without making any resistance, a short distance from the limits of the State grounds, where he had been in hiding for about an hour.

PAROLES.

During the year seven paroles have been granted. There are at present twelve prisoners out on parole, all of whom are regularly employed and who report promptly each month, and the showing made by the majority of them as to the sums which they have saved from their earnings is very satisfactory indeed.

As a result of the amendment to the parole law passed at the last session of the Legislature, making life-term prisoners eligible for parole, a large number of applications have been filed by this class of prisoners, and renewed activity in parole matters is quite apparent among all classes.

ACKNOWLEDGMENTS.

In conclusion, I desire to return my thanks to your honorable body as a Board, and to each one of you individually, also to the officers and guards of the prison, for the hearty co-operation and support, as well as the unvarying courtesy, extended to me in the management of the affairs of this institution.

Very respectfully,

M. G. AGUIRRE,
Warden.

CLERK'S REPORT.

CLERK'S OFFICE, CALIFORNIA STATE PRISON,
SAN QUENTIN, July 1, 1901.

To the Honorable the State Board of Prison Directors:

GENTLEMEN: I herewith submit for your consideration a full statement of the financial transactions of this prison for the fifty-second fiscal year, ending June 30, 1901.

Very respectfully,

F. W. REYNOLDS,
Acting Clerk.

TABLE No. 3.

Abstract of Expenses for the Fifty-second Fiscal Year.

Library Department.....		\$285 37
Expenses of State Prison Directors.....		859 05
Hospital Department.....		4,500 82
Stock Department.....		2,831 27
Captain of the Yard's Department.....		12,311 61
Turnkey's Department.....		12,955 61
Warden's House—Subsistence.....		1,153 00
Warden's House—Furniture and fixtures.....		918 15
Clerk's Office.....		469 95
Guards' Department.....		889 46
General repairs.....		3,556 96
Driveway—Warden's residence.....		187 88
General expense.....		1,220 54
Officers and Guards' Mess.....	\$13,869 95	
Night Guards' Mess.....	1,154 63	
Female Mess.....	1,692 39	
Prison Mess.....	41,753 79	
		58,470 76
Discharged prisoners.....		1,795 00
Transportation of discharged prisoners.....		1,671 45
Transportation of insane prisoners.....		31 80
Salaries.....		60,000 00
Water.....		6,613 80
Gas.....		4,374 33
Electric lights.....		2,100 00
Advertising.....		71 91
Execution account.....		50 00
Total expense.....		\$177,318 72

TABLE No. 4.

Cost of Maintenance of Prisoners per Head.

Average number of prisoners for the year, 1,298—total cost.....		\$177,318 72
Average cost per head per month.....		11 38+
Average cost per head per day.....		37.95
Total expense for the year (Table No. 3).....		\$177,318 72
Earnings of the Jute Department.....	\$43,611 57	
Support of United States prisoners.....	10,379 00	
Rent of State houses.....	772 00	
Commissary Department.....	1,009 78	
		55,772 35
Net expenses of the Prison for the year.....		\$121,546 37
Average cost per head per month—net.....		7 80+
Average cost per head per day—net.....		26.01

TABLE No. 5.

Assets and Liabilities.

<i>Assets.</i>		
Buildings	\$499,823 17	
Real estate	50,910 55	
Reservoirs	31,278 55	
Furniture Department	12,925 36	
Jute factory and equipment	448,828 75	
New house No. 2	67 49	
Jute Department—stock, fabrics, etc.	89,385 18	
Commissary Department—stock, and furniture and fixtures ..	3,740 03	
Captain of the Yard's Department	25,992 90	
Guards' Department	12,769 08	
Turnkey's Department	11,118 34	
Hospital Department	3,008 65	
Stock Department	12,448 88	\$1,202,296 93
Clerk's office	\$1,857 35	
Library	1,500 00	
		3,357 35
Officers and Guards' Mess	\$1,071 99	
Night Guards' Mess	261 76	
Prison Mess	6,070 95	
		7,404 70
Warden's house—furniture and fixtures		8,160 33
Due from the United States	\$2,849 55	
Due from sundry debtors	139,250 20	
Cash balance in bank, June 30, 1901	177,752 85	
Cash in State Prison Fund, June 30, 1901	171,500 44	
Cash in General Appropriation Fund—Support	\$9,288 18	
Salaries	5,000 00	
	14,288 18	405,641 22
Total assets, June 30, 1901		\$1,626,860 53
<i>Liabilities.</i>		
Unpaid bills for merchandise, month of June, 1901	\$18,857 05	
Unpaid bills for merchandise, other months	1,712 10	
Unpaid salaries of officers and guards, month of June, 1901 ..	5,000 00	
Unpaid wages of Jute Mill employes, month of June, 1901	2,241 68	
Jute Revolving Fund	93,920 75	
		121,731 58
Excess of assets, June 30, 1901		\$1,505,128 95

CAPTAIN OF THE YARD'S REPORT.

SAN QUENTIN, CAL., June 30, 1901.

HON. M. G. AGUIRRE, *Warden San Quentin State Prison, Cal.:*

SIR: I have the honor to herewith submit my annual report for the fiscal year ending June 30, 1901.

Very respectfully,

J. C. EDGAR,
Captain of the Yard.

LABOR REPORT FOR FISCAL YEAR ENDING JUNE 30, 1901.

Productive Class.

	1900.						1901.						Total
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	
Jute Department	18,053	19,322	16,527	19,647	17,463	11,676	16,567	16,649	18,758	19,319	19,283	18,317	211,581
Engineer Department	93	93	90	93	90	93	96	84	93	90	93	90	1,098
Foundry Department	593	672	587	654	687	703	718	667	770	797	806	730	8,384
Stock Department	501	494	444	454	473	474	506	460	524	487	529	503	5,859
Female Department	775	775	730	700	650	651	584	504	631	624	678	653	7,955
Wheelwright's Shop	62	62	60	62	60	62	51	22	58	60	60	50	669
Upholsterer's Shop	25	27	23	27	24	25	26	24	26	26	26	25	304
Locksmith's Shop	31	31	5									28	95
Carpenter Shop	338	392	361	420	384	416	457	420	518	528	528	500	5,262
Plumber Shop	50	64	69	81	72	68	78	69	78	78	77	75	859
Cooper Shop	25	27	23	27	24	25	26	23	26	26	26	25	303
Paint Shop	75	93	92	108	96	100	104	92	104	112	119	150	1,245
Tin Shop	173	181	138	169	168	175	182	160	176	155	156	168	2,001
Coal Yard	31	31	30	31	30	31	31	25	31	30	31	30	362
Vegetable Gardens	293	310	281	251	270	303	279	271	345	323	317	321	3,564
Flower Gardens	341	341	330	338	319	310	310	280	331	330	336	321	3,887
Belt-makers	25	27	23	27	24	25	26	24	26	26	25	25	303
Improvements	62	62	30	31	30	31	31	28	31	30	31	30	427
Stavedores	375	378	304	348	312	300	286	237	253	273	359	391	3,816
Road Gang	522	565	462	523	417	560	515	425	437	435	422	421	5,704
Chicken Ranch	47	62	60	47	30	31	31	28	31	30	31	30	458
Hog Ranch	93	93	90	93	90	93	93	84	93	90	93	103	1,108
Blacksmith Shop	125	117	89	118	96	100	104	92	116	147	156	150	1,410
Totals	22,708	24,219	20,848	24,249	21,809	16,252	21,101	20,668	23,456	24,016	24,192	23,136	266,654

LABOR REPORT FOR THE FISCAL YEAR ENDING JUNE 30, 1901.

Non-Productive Class.

	1900.						1901.						Total.
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	
Warden's Office.....	31	31	30	31	30	31	31	46	62	60	62	60	505
Captain of Yard's Office.....	276	246	240	248	240	248	247	223	248	240	248	233	2,937
Clerk's Office.....	31	31	30	31	30	31	31	28	31	30	31	30	365
Captain of Guard's Office.....	62	62	60	62	60	62	62	56	62	60	62	60	730
Commissary Department.....	248	219	217	217	210	217	217	196	217	210	217	210	2,626
Laundry Department.....	768	817	705	889	798	850	901	786	884	879	896	867	10,040
Library Department.....	142	138	150	155	150	155	155	125	120	120	128	143	1,681
Barber Shop.....	341	334	330	341	330	341	341	308	364	371	390	389	4,189
Shoe Shop.....	362	396	379	428	374	375	390	323	364	364	349	322	4,426
Tailor Shop.....	575	583	480	515	480	473	501	458	518	496	490	475	6,044
Lamp-lighters.....	65	62	60	62	60	62	62	56	62	60	62	60	733
Bath-tank tenders.....	31	31	30	31	30	31	31	24	28	30	31	30	358
Cell and Room tenders.....	961	957	904	957	930	981	975	868	971	959	989	958	11,410
Gate and Door tenders.....	434	435	420	428	400	381	396	345	403	390	403	390	4,825
Hospital Nurses.....	204	191	174	184	180	177	186	168	186	182	186	180	2,178
Sweepers.....	222	266	262	269	270	299	313	292	312	254	248	249	3,256
Scavengers.....	947	916	827	990	1,021	915	881	777	860	849	929	980	10,892
Whitewashers.....	173	162	121	94	48	62	47	23	35	38	26	25	854
General Kitchen and Dining-room.....	2,149	2,158	2,041	2,120	2,054	2,158	2,183	1,948	2,187	2,091	2,157	2,096	25,342
Outside Kitchen.....	575	589	564	589	569	586	581	524	582	588	601	614	6,962
Hospital Kitchen.....	62	62	60	62	60	62	62	56	62	60	62	60	730
House Servants.....	748	733	714	739	724	744	734	667	757	764	798	828	8,970
Electricians.....	31	31	30	31	30	31	31	28	31	30	31	30	365
Photographers.....	99	124	109	38	46	62	62	53	62	60	62	60	837
Messengers.....	62	62	60	62	60	62	62	56	62	60	62	60	730
Guards' Department.....	155	155	150	155	150	155	155	140	183	180	186	180	1,944
Cripples and Insane.....	1,082	1,058	992	996	990	1,051	947	837	1,008	920	919	926	11,726
Doctor, daily excuses, dungeon, etc.....	513	524	364	410	431	393	450	392	411	476	545	557	5,466
Patients in Hospital.....	595	644	628	462	356	419	466	513	496	517	563	494	6,153
To be executed.....	145	155	150	187	176	184	168	168	158	150	168	180	1,976
Unemployed.....	241	261	236	289	207	7,412	2,556	241	277	288	248	260	12,516
Totals.....	12,830	12,462	11,519	12,072	11,494	18,981	14,240	10,725	12,012	11,776	12,149	12,006	151,766

Productive class, 266,654; Non-productive class, 151,766; Total, 418,420.

FOR THE FISCAL YEAR ENDING JUNE 30, 1901.

Diseases Treated at Hospital during Each Month of Fiscal Year.

[illegible]

EXHIBIT A—Continued.

[illegible]

EXHIBIT B.

Number and Names of Prisoners who Died during Fiscal Year.

No.	Name.	Cause.	Date.
18593	G. Cordova	Inanition	July 2, 1900
9626	W. A. Ellis	Phthisis	July 18, 1900
18500	J. Bailey	Hemorrhage	July 22, 1900
16005	Ah Look	Suicide	Aug. 4, 1900
16931	Thomas Butler	General debility	Sep. 10, 1900
18655	Chas. B. Smith	Suicide	Sep. 11, 1900
16628	A. L. Speckerman	Phthisis	Oct. 13, 1900
15976	Isaiah Jones	Phthisis	Oct. 25, 1900
18733	Wm. Sullivan	Executed	Nov. 16, 1900
17269	B. Anson	Phthisis	Nov. 19, 1900
16298	S. Vivian	Chronic bronchitis	Dec. 4, 1900
12676	M. Clancy	Nephritis	Jan. 28, 1901
14839	A. A. Reavis	Tuberculosis	Feb. 8, 1901
18392	S. Connell	Phthisis	Mar. 1, 1901
14522	E. Cowgill	Heart disease	Mar. 28, 1901
19001	E. V. Methever	Executed	May 10, 1901
18287	S. Capistrano	Typhoid fever	June 3, 1901
17326	L. Richards	Phthisis	June 12, 1901
16257	R. P. Clark	Phthisis	June 15, 1901

Total deaths during fiscal year.....19

EXHIBIT C.

Number of Deaths Each Month during Fiscal Year, with Classified Totals.

[illegible]

EXHIBIT D.

Resumé of Work in Medical Department for Fiscal Year.

	1900.						
	July	August	September	October	November	December	Totals
Calls on physician.....	1,451	1,265	1,190	1,223	1,197	1,466	7,792
Daily average.....	60	52	49	50	49	48	50
Visited in cells.....	34	24	26	12	7	6	109
Daily average.....	1	1	1				
Excused from work.....	82	34	28	34	28	7	213
Daily average.....	3	1	1	1	1		1
Patients admitted.....	22	28	27	11	10	18	117
Patients discharged.....	20	24	28	14	10	13	109
Monthly invalid list.....	5	4	3	2	2	2	3
Monthly deaths.....	3	1	2	2	2	1	11

	1901.						Totals
	January	February	March	April	May	June	
Calls on physicians.....	1,304	1,408	1,428	1,352	1,458	1,222	8,172
Daily average.....	54	58	47	56	60	51	50
Visited in cells.....	27	28	27	14	16	11	123
Daily average.....	1	1	1				
Excused from work.....	57	68	66	66	42	97	396
Daily average.....	2	3	3	3	2	4	3
Patients admitted.....	14	46	25	26	24	15	150
Patients discharged.....	8	47	29	20	25	13	142
Monthly invalid list.....	2	1	4	2	1	1	2
Monthly deaths.....	1	1	2		1	3	8

P. F. CASEY, M.D.,
Resident Physician.

RESIDENT CHAPLAIN'S REPORT.

SAN QUENTIN, CAL., June 30, 1901.

To HON. M. G. AGUIRRE, *Warden State Prison, San Quentin, Cal.:*

SIR: I respectfully submit herewith my annual report as Resident Chaplain of the State Prison at San Quentin, Cal., for the year ending June 30, 1901.

The year has been a pleasant and efficient one in my work in many respects. The services have been regularly conducted and well attended in both Catholic and Protestant departments, the Sabbath being fully occupied each Lord's day, in both male and female departments. Every facility has been lent us by the Warden and his officers to this end. The zeal and fidelity of my colleagues, the Catholic Chaplains, are especially recognized and their services valued.

The library and bindery in connection with the Chapel have been well managed. There have been 137 volumes bound.

There have been received into the library 152 bound volumes, 3,020 magazines, and 10,199 papers—all of the best kind.

There have been issued from the General Library, 19,014 volumes, and from the Catholic department, 7,408 volumes, a total of 26,422 volumes for the year.

The hospitals, incorrigible cells, and condemned, have been regularly visited.

All of which is respectfully submitted.

A. DRAHMS,
Resident Chaplain, etc.

REPORT OF THE WARDEN

OF THE

STATE PRISON AT SAN QUENTIN, CALIFORNIA.

FOR THE YEAR ENDING JUNE 30, 1902.

WARDEN'S REPORT.

SAN QUENTIN, CAL., July 1, 1902.

To the Honorable the State Board of Prison Directors:

GENTLEMEN: As Warden of the California State Prison at San Quentin, I have the honor to present herewith my report for the fifty-third fiscal year, ending June 30, 1902, including the report of the Clerk of the Prison, showing, in tabulated statements, the financial transactions during said year, and the condition of the affairs of the prison at the close of the year.

You will also find herewith the reports of the Captain of the Yard, the Turnkey, the Resident Physician, and that of the Chaplain and Librarian.

I also submit a detailed statement of what has been accomplished in the Jute Department during the past fiscal year, as follows:

WORKINGS OF THE JUTE MILL FOR THE YEAR ENDING JUNE 30, 1902.

Net amount of raw jute used.....	3,573,164 lbs.
Net amount of goods manufactured.....	3,463,160 lbs.
Loss in manufacture.....	110,004 lbs.
Or 3.08%.	
Raw jute on hand June 30, 1902.....	2,613,200 lbs.
Or 6,533 bales.	

COST OF PRODUCT.

45-inch burlap.....	3.67 cents per yard.
22 x 36-inch grain bags.....	4.31 cents per bag.

OPERATING EXPENSES AND REVENUE.

Net value of goods sold.....	\$241,853 85
Net operating expenses.....	187,094 27
Net profit for the year.....	56,207 36

COMPARISON WITH PREVIOUS YEAR.

Increase in profit.....	\$12,695 79
Decrease in operating expense.....	19,166 05
(Accounted for by lower cost price of raw jute, and change from steam to electric power.)	
Decrease in production.....	112,180 bags.
(On account of time lost in the installation of electric plant.)	

INVENTORY OF MATERIAL, SUPPLIES, AND MANUFACTURED GOODS ON
HAND JUNE 30, 1902.

RAW JUTE:

6,403 bales in warehouse.
130 bales in mill.

6,533 bales, at 400 lbs. each, equals 2,613,200 lbs., at 3.16 $\frac{1}{8}$ cents ----- \$83,132 42

RAW JUTE IN PROCESS OF MANUFACTURE.

16,000 lbs. jute, batched.
3,685 lbs. jute, carded.
5,400 lbs. jute drawing.
10,111 lbs. jute roving.
1,100 lbs. jute waste.
4,904 lbs. jute burlap on looms.
18 lbs. jute twine.
1,636 lbs. jute yarn.
6,046 lbs. jute yarn in cops.
440 lbs. jute yarn in spools.
34,031 lbs. jute yarn in warp.

83,371 lbs. ----- 3,036 75

MANUFACTURED GOODS.

171,434 grain bags, hemmed ----- \$6,685 92
1 92 yds. 32-inch burlap ----- 8 06
1,900 lbs. 8-ply twine ----- 76 00
3,438 lbs. 3-ply twine ----- 137 52
3,367 lbs. waste twine ----- 50 50
2,000 imperfect bags ----- 82 00

7,040 00

STOCK.

Coal ----- \$792 33
Jute oil ----- 92 13
Machine oil and engine supplies ----- 58 05
Manila baling rope ----- 112 00
Material for tools and repairs ----- 4,741 14
Sizing material ----- 45 32
Miscellaneous ----- 10 88

5,851 85

Stock in machine shop ----- 2,285 40
Stock in tin shop ----- 93 10
Stock in foundry shop ----- 360 40
Stock in carpenter shop ----- 1,968 00

4,706 90

\$103,767 92

EXPENSES OF PRODUCTION, AND COST PRICE OF MANUFACTURED GOODS,
FOR THE YEAR ENDING JUNE 30, 1902.

SPINNING AND WEAVING EXPENSES.

Coal ----- \$11,604 30
Jute oil ----- 3,749 89
Sizing ----- 1,591 48
Rope ----- 54 55
Machine oil ----- 969 58
Tools and repairs ----- 11,463 75
Salaries ----- 31,964 10
Water ----- 832 31
Electric power ----- 6,000 00
Miscellaneous ----- 506 89

\$68,736 85

Less expenses incurred in sewing of bags and repairing sewing
machines, estimated at 5% -----

3,436 84

Net expenses of spinning and weaving 4,750,187 yards of cloth ----- \$65,300 01

Or 1.375 cents per yard.

SEWING EXPENSES.

Percentage of expenses, as above.....	\$3,436 84
75,065 lbs. of jute twine, at 3.6 cents.....	2,702 34
Total expense of sewing 4,325,400 bags.....	\$6,139 18
Or 0.14 cent per bag.	

BALING EXPENSES.

4½ yds. 45-inch burlap, at 3.67 cents per yard.....	16.51 cents.
4.82 oz. twine, at 3.60 cents per pound.....	1.08 cents.
3 lbs. jute rope, at 3.18 cents per pound.....	9.54 cents.
Total per bale.....	27.13 cents.
Or 0.54 cent per bag.	

SHIPPING EXPENSES.

Drayage, credited to Stock Department.....	5 cents.
Freight, steamer to San Francisco.....	50 cents.
Total per bale.....	55 cents.
Or 0.11 cent per bag.	

COST PRICE OF 45-INCH BURLAP.

11.20 oz. of jute, at 3.18 cents per lb.....	2.22 cents.
3.08% loss in manufacture.....	0.07 cent.
Expenses of spinning and weaving.....	1.38 cents.
Cost per yard.....	3.67 cents.

COST PRICE OF 22 x 36 GRAIN BAGS.

39½ inches 45-inch burlap, at 3.67 cents.....	4.000 cents.
Expenses of sewing.....	0.142 cent.
Expenses of baling and shipping.....	0.164 cent.
Total cost per bag delivered in San Francisco.....	4.306 cents.

MANUFACTURING STATEMENT OF JUTE DEPARTMENT FOR THE FISCAL YEAR ENDING JUNE 30, 1902.

Raw jute on hand July 1, 1901.....	5,397 bales.
Raw jute received during the year.....	10,000 bales.
Total handled.....	15,397 bales.
Less amount on hand June 30, 1902.....	6,533 bales.
Used.....	8,864 bales.
8,864 bales, at 400 lbs. per bale.....	3,545,600 lbs.
Add decrease in the amount of raw jute in process of manufacture—	
From amount on July 1, 1901.....	110,935 lbs.
To amount on June 30, 1902.....	83,371 lbs.
	27,564 lbs.
Net amount of raw jute used.....	3,573,164 lbs.

GOODS MANUFACTURED.

48,971 cuts of 45-inch burlap at 98.09 equals 4,803,660 yards, at 11.20 oz. equals.....	3,362,562 lbs.
1,093 yards 32-inch burlap.....	1,091 lbs.
3-ply twine sold and on hand.....	6,980 lbs.
8-ply twine sold and on hand.....	8,098 lbs.
Twine used in sewing 3,128,400 bags.....	48,881 lbs.
Twine used in sewing 1,197,000 bags.....	26,184 lbs.
Twine used in baling 8,721 bales.....	2,627 lbs.
Waste sold and on hand.....	6,737 lbs.
Total weight of goods manufactured.....	3,463,160 lbs.
Loss in manufacturing 3,573,164 lbs. jute.....	110,004 lbs.
Equal to 3.08%.	

OPERATING COST OF JUTE MILL, FOR THE YEAR ENDING JUNE 30, 1902.

Total expenses incurred, including value of supplies on hand July 1, 1901—		
Raw jute	\$195,926 01	
Raw jute in process of manufacture	4,399 71	
Coal	12,396 63	
Jute oil	3,842 02	
Sizing	1,636 80	
Rope	166 55	
Machine oil and engine supplies	1,027 63	
Tools and repairs	20,911 79	
Salaries	31,964 10	
Water	832 31	
Electric power	6,000 00	
Freight on manufactured goods	4,200 87	
Miscellaneous	517 77	
		\$283,822 19
Less value of supplies on hand June 30, 1902, as per inventory—		
Raw jute	\$83,132 42	
Raw jute in process of manufacture	3,036 75	
Coal	792 33	
Jute oil	92 13	
Sizing	45 32	
Rope	112 00	
Machine oil and engine supplies	58 05	
Tools and repairs	9,448 04	
Miscellaneous	10 88	
		96,727 92
Net operating cost for the year		\$187,094 27

Divided as follows:

Value of raw jute used	\$112,793 59	
Decrease in value of raw jute in process of manufacture	1,362 96	
Net value of raw jute used	\$114,156 55	
Expenses of spinning and weaving, sewing and baling	68,736 85	
Freight on manufactured goods	4,200 87	
		\$187,094 27

MANUFACTURED GOODS SOLD DURING THE YEAR ENDING JUNE 30, 1902

1,073,650 22 x 36 grain bags	@ 5.64c.	\$60,553 86	
2,000 imperfect bags	5.00c.	100 00	
			\$60,653 86
(Sold in advance of manufacture, prior to July 1, 1901.)			
3,968,500 22 x 36 grain bags	@ 5.55c.	\$220,251 79	
146,400 22 x 36 grain bags	5.64c.	8,256 96	
500 imperfect bags	5.00c.	25 00	
300 ore bags	5.00c.	15 00	
3,542 lbs. 3-ply twine	7.00c.	247 94	
6,198 lbs. 8-ply twine	5.50c.	340 97	
10,040 lbs. waste twine	1.50c.	150 60	
Lot of loom waste		37 56	
Burlap sold to various individuals and departments		96 90	
Jute products issued to other departments		115 10	
			229,537 82
Less value of:			\$290,191 68
869,150 22 x 36 grain bags, sold in advance of manufacture, prior to June 30, 1902	@ 5.55c.	\$48,237 83	
2,000 imperfect bags, entered as sold prior to and canceled after July 1, 1901	5.00c.	100 00	
			48,337 83
Net sales during the year			\$241,853 85

PROFIT AND LOSS ACCOUNT.

Sales of manufactured goods.....	\$241,853 85	
Value of goods on hand June 30, 1902, at cost price, as per inventory	7,040 00	\$248,893 85
Deduct—		
Net operating expenses	\$187,094 27	
Value of manufactured goods on hand June 30, 1902.....	5,592 22	192,686 49
Net profit on goods sold during the year		<u>\$56,207 36</u>

GRAIN BAG STATEMENT FOR THE FISCAL YEAR ENDING JUNE 30, 1902.

Bags baled.....	4,325,400
Bags sold prior to July 1, 1901.....	1,079,650
Bags sold during the year.....	4,114,900
	<u>5,194,550</u>
Less bags sold in advance of manufacture, prior to June 30, 1902..	869,150
	<u>4,325,400</u>
Average price for which bags were sold.....	5.567 cents
Bags on hand July 1, 1901.....	1,807,100
Bags baled during the year.....	4,325,400
Bags shipped during the year.....	5,349,000
Bags on hand June 30, 1902.....	783,500

There has been no abatement this season in the demand for San Quentin grain bags, and the probable output of the Jute Mill up to the time of the latest acceptable delivery to farmers has long since been sold.

That the previous excellent quality of our bags has been more than maintained is evident from the fact that no complaints whatever have been received from purchasers; on the contrary, I have on file a number of commendatory letters with regard to the quality of our product as compared with standard Calcutta bags. Moreover, another significant fact is, that only 2,000 imperfect bags were made by us out of a total output of considerably over four million, being a much smaller percentage than ever before secured.

By the above tabulated statement it will be observed that there has been a decrease in the output, as compared with the previous year, of 112,180 bags, due to the long shutdown of the mill in order to install the electric plant. On the other hand, by reason of the lower cost-price of raw jute and the change from steam to electric power, there has been a decrease of \$19,166.05 in the operating expenses, and a consequent increase in the net profit amounting to \$12,595.79, giving a net profit for the year of \$56,207.36; which, according to the records of the prison, is largely in excess of the showing made for any previous year in the history of the Jute Mill.

A comparison of the profits resulting from the operation of the Jute Mill during the past three years, with the results of the four years next preceding my administration, shows as follows:

Net profit for three years ending June 30, 1902.....	\$133,235 75
Net profit for four years ending June 30, 1899.....	86,128 10
Excess in profit	\$47,107 65
Average yearly net profit for three years ending June 30, 1902 ...	\$44,411 92
Average yearly net profit for four years ending June 30, 1899	28,709 37
Excess average yearly net profit	\$15,702 55

IMPROVEMENTS.

Electric Power Plant.—Under the contract made by your Honorable Board with the California Central Gas and Electric Company to furnish power for the Prison Jute Mill, an electrical power plant was installed during January of the present calendar year, consisting of two 100 H. P. motors, two 75 H. P. motors, four 50 H. P. motors, one 30 H. P. motor, and one 20 H. P. motor. The result of this change has been highly gratifying from a standpoint of economy, both as to a decrease in the actual running expenses for power, amounting, approximately, to fifty per cent, and an increase in the output, amounting to at least three per cent. In fact, the electrical power, although with us having barely passed the experimental stage, has already proven far more satisfactory than the steam power formerly used, and from our experience thus far I hope to be able to submit facts and figures at the close of the fifty-fourth fiscal year that will fully prove the correctness of my assertions at this time.

Lighting System.—The wisdom of your Board in authorizing such improvements and additions to our electric lighting system as were necessary to secure the requisite amount and proper distribution of light in and about the prison is now quite apparent; for I am sure that no advance step has been made here for years past which was more appreciable than the recent change in our lighting system.

While our lights now cost us approximately fifty per cent more than previously, including the gas which we use as an auxiliary, we are receiving more than five times as much light as formerly, and the service is in every way more satisfactory, as the lamps burn steadily and brilliantly and require comparatively but little attention.

Allow me to mention, as a matter of comparison, that where we formerly had but ten arc lamps of a very old pattern, we now have forty-four of the latest improved, inclosed, long-burning arc lamps, so distributed as to light up almost every dark corner of the prison, and in addition to the above we have, inside the walls, nine incandescent lamps of 65 candle-power each, which are burned steadily at night; also 53 incandescent lamps of 16 and 32 candle-power each, which are

burned intermittently as required, and an independent circuit of 98 incandescent lamps has been installed in the Jute Mill.

New Houses.—It gives me pleasure to report the completion, since the beginning of the fifty-third fiscal year, of three houses for employés, one of which was in course of construction at the time of my last annual report.

While the erection of four houses on the prison grounds within the past two years has furnished a measure of relief to employés having families, there is still urgent need for a number more of such houses, the construction of which I would recommend at an early day, believing that the comparatively small expenditure required for this purpose will be for the very best interests of the institution.

Roads on State Grounds.—The work of improving the roads on and immediately outside the prison grounds, in progress at the time of my last annual report, has been continued, with many unavoidable interruptions, up to date; and while considerable remains to be done in this direction, owing to the permanent character of the work accomplished thus far I have reason to feel highly gratified at the progress made, and should we not be prevented from continuing this work, I hope at the end of the ensuing fiscal year to be able to report our prison roads as being in much better condition than for many years past.

After many futile attempts to secure a good road-making material on the State lands, we have recently uncovered a good supply of a fine quality of rock for this purpose.

Proposed New Storage Warehouse.—While on the subject of improvements, allow me to again urge your honorable body to use your best endeavors toward securing, at the earliest possible date, the erection here of a suitable warehouse for storing raw jute and grain bags, as the necessity for such a building is really imperative, and the absence of adequate storage facilities must sooner or later result greatly to the disadvantage of the institution from the consequent exposure of our stock of raw jute to the elements, and oftentimes, for short periods, manufactured goods as well.

PAROLE REPORT.

Prisoners on parole June 30, 1901.....	12
Paroled during the fifty-third fiscal year.....	16
	— 28
Discharged during the fifty-third fiscal year.....	8
	—
Remaining on parole June 30, 1902.....	20

I am just informed that one prisoner has violated the conditions of his parole, against whom I shall present a formal charge to your Board

in due time. With this one exception, however, the parole system has been working smoothly and satisfactorily. All paroled prisoners are reporting regularly and their reports show good average earnings.

HEALTH OF PRISONERS.

As shown by the report of the Resident Physician, the health of the inmates as a whole has been excellent.

Including one murder and two executions, there have been 29 deaths during the year.

PRISON POPULATION.

COMPARATIVE STATEMENT.

	1901.	1902.
Prisoners on hand June 30	1,312	1,476
Prisoners received	430	608
Prisoners discharged	427	444
Monthly average	1,298	1,407½
Increase	3	164

By the above statement it will be seen that our prison population has been largely increased during the past year, and it is now greater than it has been at the close of any fiscal year since 1879.

DISCIPLINE.

Remarkably good discipline has been maintained throughout the year, and the punishment record for offenses of a serious nature is very small indeed. There have been no escapes, and no attempts made to escape.

But one really serious difficulty between the inmates has occurred, which resulted in the death of one man and severe injury to another at the hands of a fellow prisoner, on March 13, 1902. The murderer has since been tried, convicted, and sentenced to receive the death penalty, the execution of which he is now awaiting at the State Prison at Folsom.

In concluding this, my third annual report, I wish to thank your Honorable Board, collectively and individually, for the courteous support and assistance extended to me at all times, and I feel that my sincere thanks are also due to the officers and employés of the prison for their co-operation and assistance.

Very respectfully,

M. G. AGUIRRE,
Warden.

CLERK'S REPORT.

CLERK'S OFFICE, CALIFORNIA STATE PRISON,
SAN QUENTIN, August 1, 1902.

To the Honorable the State Board of Prison Directors:

GENTLEMEN : Herewith please find a tabulated statement of the financial transactions of this prison for the fifty-third fiscal year, ending June 30, 1902.

Yours, very respectfully,

JAMES M. OLIVER,

Clerk.

TABLE No. 2.

Cash Disbursements of the State Prison at San Quentin during the Fifty-third Fiscal Year, ending June 30, 1902.

	State Prison Fund.	Jute Revolving Fund.	Merchandise.	Salaries of Officers and Guards.	Salaries of Jute Mill Employees.	Freight.	Allowances Paid Discharged Prisoners.	Transportation Paid Discharged Prisoners.	Transportation of Insane Prisoners.	Gas.
1901—July	\$65,609 23	\$93,920 75	\$1,208 45	\$5,000 00	\$2,241 68		\$100 00	\$96 55		
August	37,443 50		15,929 17	5,000 16	2,314 39	\$1,240 41	135 00	100 45		\$227 30
September	9,512 68		25,723 67	5,000 16	2,341 01	1,793 68	70 00	43 40	\$13 60	429 70
October	5,211 27		10,736 24	5,000 00	2,399 99	420 24	150 00	100 70	22 70	341 90
November	2,949 79		15,399 26	4,999 53	2,706 97	551 95	140 00	131 60	14 50	418 55
December	1,007 23			5,000 00	2,780 34		185 00	159 85		
1902—January	4,075 44	9,278 60	15,322 29	5,000 32	2,785 10	383 91	120 00	123 95		529 85
February		4,141 19	26,792 36	4,999 52	2,760 20	591 07	150 00	139 50	60 05	1,232 95
March		25,388 96	14,730 72	4,999 29	2,789 50	168 51	125 00	100 40		8 00
April	460 36	3,646 10		5,001 13	2,770 58		185 00	152 60		
May	33,465 97		26,193 40	5,000 00	2,830 00	776 31	125 00	121 65	26 15	1,074 40
June	94,373 65			4,999 52	2,783 50		205 00	136 70		
Totals	\$254,109 12	\$136,375 60	\$152,035 56	\$59,999 63	\$31,503 26	\$5,925 08	\$1,690 00	\$1,407 35	\$137 00	\$4,262 65
	Electric Lights.	Water.	Drugs and Chemicals.	General Expense.	Prison Directors' Expenses.	Execution Account.	United States.	Advertising.	Raw Jute and Freight.	Totals.
1901—July							\$5 35			\$168,182 01
August	\$175 00	\$766 74	\$206 26	\$159 01			10 35	\$143 83		63,851 57
September	350 00	1,519 85	249 94	436 11	\$712 80					48,196 60
October	175 00	643 05	244 98	73 73	424 35		10 70			25,954 85
November	175 00	624 87	170 97	99 91	64 00			52 00		28,498 90
December							61 10			9,193 52
1902—January	175 00	612 90	132 88	297 98	39 70		11 25	32 00	\$9,278 60	48,199 77
February	350 00	1,014 10	297 30	473 56	142 70		18 05		33,176 25	76,338 80
March		234 28	120 07	126 13	32 35	\$25 00	35 40			48,883 61
April							84 65			12,300 42
May	949 78	1,182 19	264 24	409 45	571 10		14 10			73,030 74
June							14 35			102,512 72
Totals	\$2,349 78	\$6,597 98	\$1,086 64	\$2,075 88	\$1,987 00	\$25 00	\$292 30	\$227 83	\$42,454 85	\$705,143 51

TABLE No. 3.

Abstract of Expenses for the Fifty-third Fiscal Year.

Execution account		\$50 00
Advertising		158 00
Prison Directors' expenses		2,043 65
Allowances paid discharged prisoners		1,690 00
Transportation furnished discharged prisoners		1,407 35
Transportation furnished insane prisoners		145 60
Cross roads		3 25
Salaries		59,999 63
Electric lights		2,924 08
Gas		4,695 65
Water		6,641 38
Captain of the Yard's Department		12,736 07
Captain of the Guard's Department		1,349 95
Turnkey's Department		16,544 92
Hospital		5,595 06
Stock Department		1,732 76
Officers and Guards' Mess	\$17,034 93	
Night Guards' Mess	1,324 12	
Female Mess	1,798 19	
Prison Mess	46,047 00	
		66,204 24
General expense		2,674 43
General repairs		4,749 26
Warden's Residence—Subsistence		1,361 60
Warden's Residence—Furniture and fixtures		923 50
Clerk's Office		771 93
Library		200 79
Total expense		\$194,603 10

TABLE No. 4.

Cost of Maintenance of Prisoners per Head.

Average number of prisoners for the year, 1,407 $\frac{1}{3}$ —total cost	\$194,603 10
Average cost per head per month	11 52 $\frac{34}{100}$
Average cost per head per day	38 $\frac{41}{100}$
Total expenses for the year (Table No. 3)	\$194,603 10
Earnings of the Jute Department	\$56,207 36
Support of United States prisoners	10,850 50
Rent of State houses	931 55
Earnings of Commissary Department	228 42
	68,217 83
Net expenses of the prison for the year	\$126,385 27
Average cost per head per month—net	7 48 $\frac{37}{100}$
Average cost per head per day—net	24 $\frac{94}{100}$

TABLE No. 5.

Assets and Liabilities.

<i>Assets.</i>			
Buildings.....		\$503,728 70	
Real estate.....		50,910 55	
Reservoirs.....		31,278 55	
Furniture Department.....		12,925 36	
Electric plant.....		530 34	
			\$599,373 50
Commissary Department—			
Stock.....	\$988 77		
Furniture and fixtures.....	3,002 52		
		\$3,991 29	
Captain of the Yard's Department—			
General inventory.....	\$25,773 80		
Female Mess.....	1,261 67		
		27,035 47	
Turnkey's Department, inventory.....		13,044 17	
Guards' Department, inventory.....		12,795 38	
Hospital, inventory.....		2,980 90	
Stock Department, inventory.....		13,514 95	
Warden's residence—Furniture and fixtures.....		8,280 46	
Clerk's Office, inventory.....		1,884 60	
Library, inventory.....		1,530 00	
			85,057 22
Prison Mess, inventory.....		\$6,090 95	
Officers and Guards' Mess, inventory.....		1,071 99	
Night Guards' Mess, inventory.....		261 76	
			7,424 70
Due from United States, support of United States prisoners.....		\$2,284 60	
Due from U. S. R. S. "Independence," support of United States marine prisoners.....		639 50	
Due from Folsom State Prison.....		74 00	
			2,998 10
Cash in State Prison Fund, June 30, 1902.....		\$267,750 57	
Cash in General Appropriation Fund—			
Support.....	\$8,332 51		
Salaries.....	5,000 37		
		13,332 88	
Cash in Jute Revolving Fund.....		100,000 00	
			381,083 45
Jute factory and equipment, inventory.....		\$461,428 75	
Jute Department—			
Raw jute.....	\$83,132 42		
Raw jute in process of manufacture.....	3,036 75		
Manufactured goods.....	7,040 00		
Stock.....	10,558 75		
		103,767 92	
Due from sundry purchasers of grain bags.....		73,929 21	
			639,125 88
Total assets, June 30, 1902.....			\$1,715,062 85
<i>Liabilities.</i>			
Unpaid bills for merchandise, months of May and June, 1902.....		\$131,032 68	
Unpaid wages of Jute Mill employes, month of June, 1902.....		2,702 52	
			\$133,735 20
Excess of assets, June 30, 1902.....			\$1,581,327 65

TURNKEY'S REPORT.

SAN QUENTIN, CAL., June 30, 1902.

HON. M. G. AGUIRRE, *Warden State Prison at San Quentin, California :*

SIR: I have the honor to herewith submit my annual report in tabular statements, for the fifty-third fiscal year ending June 30, 1902.

H. C. McCLURE,
Turnkey.

TABLE No. 1.

A Summary of Receipts and Discharges from July 1, 1901, to June 30, 1902.

Month.	Received per Commitment	Resentenced and Returned	Returned Witnesses.	Returned on Writ of Habeas Corpus	Returned from Asylum	Total Received	Prisoners on Hand at End of Each Month	Discharged per Act and Restored	Discharged per Act.	Discharged on Writ.	Died	Transferred to Asylum	Paroled	Out for Resentence.	Out for New Trial.	Out for Witness	By Order of Secretary of Navy.	Executed	Killed	Pardoned	Total Discharged
1901—July	37	0	0	0	0	37	1,326	6	14	1	1	1	0	0	0	0	0	0	0	0	23
August	42	1	0	0	0	43	1,333	9	19	1	4	0	0	1	1	0	0	0	0	0	36
September	47	0	1	0	0	48	1,364	5	9	0	0	1	0	0	1	1	0	0	0	0	17
October	45	0	0	0	0	45	1,370	8	22	0	0	2	0	0	0	0	0	0	0	0	39
November	47	1	1	0	0	49	1,385	4	24	0	3	1	0	1	0	1	0	0	0	0	34
December	54	0	1	1	0	56	1,390	3	35	3	0	1	6	0	0	1	1	0	0	0	51
1902—January	62	0	0	0	0	62	1,417	5	20	0	1	4	4	0	1	0	0	0	0	0	35
February	54	0	0	0	0	54	1,436	4	28	0	2	0	0	0	0	0	0	1	0	0	35
March	56	1	0	0	1	58	*1,463	5	22	0	0	0	1	0	0	0	0	0	1	1	31
April	51	0	0	0	0	51	*1,451	5	33	0	0	2	2	0	0	0	16	0	0	0	63
May	61	1	0	0	0	62	*1,477	8	23	0	1	1	1	1	0	0	0	0	0	1	36
June	43	0	0	0	0	43	*1,476	9	30	0	4	0	0	0	0	0	0	1	0	0	44
Totals	589	4	3	1	1	608	-----	71	279	5	26	13	16	4	5	3	17	2	1	2	444

* One prisoner absent temporarily, charged with killing fellow prisoner.

Prisoners on hand June 30, 1901.....1,312

Prisoners received from July 1, 1901, to June 30, 1902.....608

Total.....1,920

Prisoners discharged from July 1, 1901, to June 30, 1902.....444

Prisoners on hand June 30, 1902.....1,476

Monthly average.....1,407 $\frac{2}{3}$

Increase during year.....164

TABLE No. 2.

Nativity of Prisoners.

Foreign.	No.	United States.	No.
Africa	2	Alabama	3
At sea	2	Alaska	3
Australia	5	Arizona	4
Austria	8	Arkansas	4
Azores Islands	1	California	394
Belgium	2	Colorado	4
British Columbia	2	Connecticut	7
Canada	28	Dakotas	2
Canary Islands	1	Delaware	1
Cape Verde Islands	2	District of Columbia	3
China	54	Florida	1
Corsica	2	Georgia	8
Cuba	3	Illinois	52
Denmark	10	Indian Territory	2
England	29	Indiana	16
Finland	4	Idaho	2
France	15	Iowa	26
Germany	60	Kansas	11
Greece	4	Kentucky	27
Guatemala	4	Louisiana	6
Ireland	44	Maine	6
Italy	21	Maryland	9
Japan	7	Massachusetts	48
Mexico	52	Michigan	20
New Brunswick	4	Minnesota	10
Nova Scotia	3	Mississippi	4
Poland	5	Missouri	47
Portugal	5	Montana	3
Russia	3	Nebraska	10
Scotland	12	Nevada	8
South America	5	New Hampshire	2
South Sea Islands	1	New Jersey	10
Sweden and Norway	14	New York	111
Switzerland	6	New Mexico	1
Wales	5	North Carolina	6
		Ohio	31
		Oregon	12
		Pennsylvania	56
		Philippines	2
		Rhode Island	2
		Sandwich Islands	1
		South Carolina	2
		Tennessee	10
		Texas	20
		Utah	2
		Vermont	2
		Virginia	14
		West Virginia	3
		Washington	7
		Wisconsin	14
		Wyoming	2
Total	425	Total	1,051

Recapitulation.

Foreign	425
United States	1,051
Total	1,476

TABLE No. 3.

Classification of Crime.

Crime.	No.	Crime.	No.
Abduction	1	Grand larceny	210
Arson, first degree	2	Grand larceny, attempted	6
Arson, second degree	10	Grand larceny, and priors	7
Assault with deadly weapon	37	Grand larceny, two commitments	2
Assault with deadly weapon, and prior	2	Grand larceny, and assault with deadly weapon	2
Bigamy	2	Grand larceny, and burglary, second degree	2
Burglary	45	Incest	3
Burglary and injuring jail	3	Injuring jail	3
Burglary, and priors	3	Kidnaping	1
Burglary, attempted, and petit larceny	1	Manslaughter	65
Burglary, two commitments	1	Mayhem	1
Burglary and robbery	1	Murder	17
Burglary, first degree	167	Murder, first degree	118
Burglary, first degree, and priors	15	Murder, second degree	88
Burglary, first degree, two commitments	4	Murder, assault to	26
Burglary, first and second degrees	2	Murder, assault to, and prior	3
Burglary, first degree, attempted	4	Murder, assault to, and burglary, second degree	2
Burglary, second degree	172	Murder, assault to, and robbery	3
Burglary, second degree, and priors	14	Murder, second degree, and robbery	2
Burglary, second degree, two commitments	5	Obtaining money by false pretense	4
Burglary, second degree, and grand larceny	1	Passing fictitious check	2
Crime against nature	15	Perjury	2
Crime against nature, two commitments	2	Petit larceny, and prior	21
Counterfeiting	11	Rape	39
Conspiracy	2	Rape, assault to	25
Desertion	1	Rape, assault to, and prior	2
Embezzlement	25	Receiving stolen property	4
Embezzlement and assault	1	Robbery	115
Extortion	1	Robbery, assault to commit	22
Felony	53	Robbery, and priors	13
Felony, two commitments	1	Robbery, two commitments	1
Felony, and priors	2	Seduction	1
Forgery	53	Selling liquor to Indians	2
Forgery, two commitments	1	Sodomy	1
Forgery, and priors	1	Total	1,476

TABLE No. 4.

Terms of Imprisonment.

Term.	No.	Term.	No.
Three months.....	1	Fourteen years.....	30
Six months.....	2	Fifteen years.....	64
One year.....	98	Sixteen years.....	3
One year and two months.....	2	Sixteen years and six months.....	1
One year and three months.....	7	Seventeen years.....	4
One year and six months.....	24	Eighteen years.....	4
One year and eight months.....	1	Twenty years.....	47
Two years.....	128	Twenty-one years.....	6
Two years and six months.....	16	Twenty-three years.....	2
Two years and ten months.....	1	Twenty-four years.....	3
Three years.....	116	Twenty-five years.....	34
Three years and six months.....	11	Twenty-six years.....	6
Four years.....	83	Twenty-seven years.....	2
Four years and six months.....	2	Twenty-eight years.....	2
Four years, eleven months, and twenty-nine days.....	1	Thirty years.....	16
Five years.....	180	Thirty-three years.....	1
Six years.....	51	Thirty-five years.....	7
Six years and six months.....	2	Thirty-nine years.....	1
Seven years.....	60	Forty years.....	9
Seven years and six months.....	5	Forty-five years.....	1
Eight years.....	34	Fifty years.....	5
Nine years.....	10	Sixty years.....	1
Ten years.....	176	Sixty-six years.....	1
Ten years and six months.....	1	Ninety-nine years.....	1
Eleven years.....	3	Life.....	174
Twelve years.....	24	Death.....	9
Thirteen years.....	3	Total.....	1,476

Recidivists.

Second-termers.....	200
Third-termers.....	60
Fourth-termers.....	22
Fifth-termers.....	7
Sixth-termers.....	5
Eighth-termers.....	2
Ninth-termers.....	1
First-termers.....	1,179
Total.....	1,476

TABLE No. 5.

Ages of Prisoners when Received.

Years.	No.	Years.	No.
Fifteen	1	Forty-six	17
Sixteen	3	Forty-seven	16
Seventeen	22	Forty-eight	20
Eighteen	36	Forty-nine	9
Nineteen	50	Fifty	27
Twenty	41	Fifty-one	12
Twenty-one	57	Fifty-two	18
Twenty-two	74	Fifty-three	5
Twenty-three	69	Fifty-four	10
Twenty-four	62	Fifty-five	5
Twenty-five	68	Fifty-six	7
Twenty-six	65	Fifty-seven	10
Twenty-seven	69	Fifty-eight	7
Twenty-eight	62	Fifty-nine	7
Twenty-nine	59	Sixty	7
Thirty	58	Sixty-one	9
Thirty-one	30	Sixty-two	2
Thirty-two	48	Sixty-three	3
Thirty-three	41	Sixty-five	3
Thirty-four	33	Sixty-six	2
Thirty-five	36	Sixty-seven	4
Thirty-six	36	Sixty-eight	2
Thirty-seven	23	Sixty-nine	2
Thirty-eight	50	Seventy	1
Thirty-nine	24	Seventy-two	2
Forty	44	Seventy-three	1
Forty-one	26	Seventy-six	1
Forty-two	22	Seventy-eight	1
Forty-three	18		
Forty-four	22	Total	1,476
Forty-five	17		

Prisoners' Educational Abilities.

Read and write	1,256
Can not read or write	220
Total	1,476

TABLE No. 6.

Counties Represented.

Counties.	No.	Counties.	No.
Alameda	12	Santa Barbara	21
Amador	13	San Francisco	340
Butte	19	Santa Clara	33
Calaveras	9	Santa Cruz	9
Colusa	10	Shasta	32
Contra Costa	17	Sierra	3
Del Norte	3	Siskiyou	13
El Dorado	1	Solano	26
Fresno	64	Sonoma	28
Glenn	2	Stanislaus	17
Humboldt	15	Sutter	3
Kern	37	Tehama	13
Kings	21	Trinity	6
Lake	7	Tulare	16
Lassen	1	Tuolumne	10
Los Angeles	157	Ventura	14
Madera	3	Yolo	6
Marin	5	Yuba	23
Mariposa	8		
Mendocino	12	Total	1,457
Merced	13		
Monterey	27	<i>U. S. Districts.</i>	
Mono	1	Alaska	7
Napa	26	Arizona	2
Nevada	11	Idaho	1
Orange	19	Washington	2
Placer	23		
Plumas	2	Total	12
Riverside	30		
San Benito	9	<i>U. S. Naval Stations.</i>	
San Bernardino	35	Mare Island	4
Sacramento	36	China	2
San Diego	27	Corea	1
San Joaquin	71		
San Luis Obispo	16	Total	7
San Mateo	22		

TABLE No. 7.

Prisoners' Legitimate Occupation.

Occupations.	No.	Occupations.	No.
Actor	3	Journalist	2
Agent	3	Knifegrinder	1
Appliarist	1	Liveryman	1
Artist	4	Laborer	328
Architect	3	Longshoreman	4
Accountant	4	Laundryman	21
Auctioneer	2	Lawyer	3
Baker	13	Lumberman	2
Barkeeper	15	Lineman	2
Barber	33	Marine	1
Blacksmith	23	Machinist	25
Boilermaker	5	Miner	67
Bookkeeper	20	Milliner	1
Bricklayer	7	Musician	3
Brickmaker	2	Messenger-boy	1
Butcher	17	Merchant	5
Brass-worker	1	Miller	2
Brewer	2	Manufacturer	1
Blockmaker	1	No occupation	22
Bridge-builder	1	Nurseryman	1
Button-maker	2	Nurse	15
Bamboo-worker	1	Oiler	3
Brush-maker	1	Porter	7
Bootblack	1	Painter	35
Cabinetmaker	2	Pilot	2
Carpenter	36	Peddler	5
Cigarmaker	4	Printer	13
Clerk	33	Plumber	18
Cook	77	Pianomaker	1
Cowboy	6	Physician	3
Confectioner	2	Paper manufacturer	1
Cooper	2	Photographer	4
Chair-caner	2	Plasterer	2
Constable	1	Roofer	1
Coachman	1	Railroadman	7
Contractor	1	Restaurateur	4
Dairyman	1	Real estate agent	3
Dog-trainer	1	Stove-fitter	1
Draper	1	Sugar-maker	1
Dressmaker	2	Shop-girl	1
Dyer	2	Salesman	13
Druggist	2	Sailor	29
Dishwasher	3	School teacher	2
Demijohn-coverer	1	Soldier	1
Electrician	11	Servant	10
Engineer, Civil	3	Shoemaker	28
Engineer, Mechanical	17	Steward	3
Engraver	2	Stenographer	1
Embalmer	1	Stonemason	6
Florist	1	Slater	2
Foundryman	1	Stagedriver	3
Farmer	86	Shepherd	1
Fireman	22	Shipbuilder	1
Fisherman	2	Tailor	28
Fruit-picker	4	Teamster	58
Gardener	10	Trick bicyclist	1
Gasfitter	1	Telegrapher	6
Grocer	1	Tinsmith	4
Gilder	1	Tilessetter	1
Harnessmaker	1	Underwriter	4
Hatter	1	Upholsterer	4
Hotelkeeper	5	Vaquero	2
Housekeeper	3	Veterinary surgeon	2
Horseshoer	5	Waiter	79
Hostler	20	Woodchopper	2
Hunter	4	Wagonmaker	1
Ironmolder	10	Wireworker	1
Interpreter	1		
Jeweler	5	Total	1,476
Jockey	1		

TABLE No. 8.

Clothing Issued from July 1, 1901, to June 30, 1902.

1901 1902.	Discharge Clothing.								
	Hickory Shirts	Hats	Shirts	Shoes	Pants	Vests	Coats		
	4	15	11	56	15	14	14	273	
	2	24	13	52	25	23	23	225	
	2	24	3	40	7	8	8	221	
	7	25	14	61	27	21	21	229	
	6	25	16	35	25	21	21	232	
	3	39	24	61	31	27	27	163	
							114	1,143	
							23	301	
							25	217	
							30	294	
							14	237	
							48	243	
							24	500	
							18	171	
							271	2,806	
							23	347	
							82	285	
							109	419	
							87	343	
							96	326	
							116	297	
							1,061	3,646	
							25	559	
							3	44	
							2	11	
							84	509	
							111	119	
							551	523	
							107	486	
							131	435	
							105	1,279	
							592	5,764	
							471	981	
							287	2970	
							215	295	
							295	265	
							264	266	
							265	209	
							207	2,952	
							1,424	2,669	
							1,272	2,669	
							491	1,009	
							421	935	
Total, 6 months									
January							105		
February							79		
March							101		
April							77		
May							84		
June							68		
Total for year							935		

CAPTAIN OF THE YARD'S REPORT.

SAN QUENTIN, CAL., June 30, 1902.

HON. M. G. AGUIRRE, *Warden State Prison at San Quentin, California:*

SIR: I have the honor to herewith submit my annual report in tabular statements, for fifty-third fiscal year ending June 30, 1902.

J. C. EDGAR,
Captain of the Yard.

LABOR REPORT FOR THE FISCAL YEAR ENDING JUNE 30, 1902.

Productive Class.

	1901.						1902.						Total.....
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	
Jute Department	19,017	18,978	17,136	19,451	17,400	18,926	9,166	13,675	21,386	20,420	18,541	19,429	213,525
Engineer Department	93	93	90	90	81	90	78	69	81	78	78	78	999
Foundry Department	760	789	642	738	670	740	827	723	894	872	898	867	9,420
Stock and Stable Department	472	443	450	456	432	461	461	425	405	480	480	471	5,436
Female Department	651	651	621	601	588	684	708	663	794	780	821	752	8,314
Wheelwright's Shop	56	54	46	52	46	50	52	50	54	49	51	50	610
Upholsterer's Shop	29	27	23	28	23	28	27	23	44	67	78	75	472
Locksmith's Shop	31	31	30	30	12	25	26	23	27	26	24	25	310
Carpenter Shop	527	541	506	585	540	642	791	638	785	752	760	750	7,817
Plumber Shop	78	107	92	119	108	116	120	111	124	150	155	150	1,430
Cooper Shop	26	27	23	26	23	26	26	23	27	26	26	25	304
Paint Shop	157	162	153	228	218	234	234	200	196	206	208	181	2,367
Tin Shop	161	189	164	191	204	204	208	200	270	260	260	250	2,561
Coal Yard	31	31	30	30	23	28	27	23	27	26	26	25	327
Vegetable Garden	341	431	295	317	297	321	328	313	341	357	403	495	4,239
Flower Garden	322	348	388	390	351	361	360	364	403	390	394	442	4,513
Belt Makers	28	27	22	91	115	125	5,650	620	155	130	155	150	77
Improvement	26	27	37	37	115	125	5,650	620	155	130	155	150	7,281
Stevedores	385	419	349	358	257	315	395	364	427	418	496	508	4,691
County Road Gang	453	485	414	447	395	436	510	410	473	776	958	953	6,980
Chicken Ranch	31	31	30	30	27	26	30	28	31	45	62	60	431
Hog Ranch	93	93	90	90	81	80	90	79	93	90	96	90	1,065
Blacksmith Shop	136	135	115	130	115	150	135	117	135	155	130	125	1,578
Totals	23,904	24,119	21,746	24,478	22,006	24,068	20,249	19,131	27,442	26,553	25,100	25,951	284,747

LABOR REPORT FOR THE FISCAL YEAR ENDING JUNE 30, 1902.

Non Productive Class.

STATE PRISON AT SAN QUENTIN—CAPTAIN OF THE YARD'S REPORT. 59

	1901.						1902.						Total
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	
Warden's Office	62	62	60	60	54	60	60	56	62	60	62	60	718
Captain of the Yard's Office	248	254	270	253	216	240	240	224	258	240	248	233	2,924
Clerk's Office	31	31	30	30	27	30	30	28	31	30	31	30	359
Captain of the Guard's Office	62	62	60	60	54	60	104	56	62	60	62	60	762
Commissary Department	217	217	210	210	189	210	210	196	217	210	215	210	2,511
Laundry Department	915	945	805	910	805	936	936	753	995	1,109	1,012	993	11,168
Library Department	153	143	150	165	162	156	145	137	135	150	155	150	1,801
Barber Shop	403	422	420	447	382	420	420	373	403	390	403	325	4,808
Shoe Shop	337	331	322	390	348	372	416	358	420	413	416	413	4,450
Tailor Shop	492	513	467	570	516	576	612	529	684	679	702	685	7,025
Lamp lighter	62	62	60	60	75	75	60	56	62	60	62	60	754
Bath-Tank tenders	31	31	30	30	27	26	30	28	31	30	31	30	355
Cell and Room tenders	992	950	900	900	784	848	840	791	868	840	873	872	10,458
Gate and Door tenders	403	403	390	389	351	390	390	356	350	387	412	390	4,611
Hospital Nurses	186	186	180	186	189	210	210	215	248	240	248	240	2,538
Sweepers	322	408	370	361	276	360	312	297	360	378	417	460	4,321
Scavengers	931	878	880	927	879	1,027	998	829	943	773	862	748	10,675
Whitewashers	37	81	69	81	69	78	78	69	81	78	61	50	832
General Mess	2,116	2,176	2,091	2,022	1,861	2,032	2,071	2,011	2,170	2,147	2,252	2,173	25,122
Outside Kitchen	651	646	664	660	611	696	739	714	724	714	753	687	8,259
Hospital Kitchen	62	62	60	60	54	60	60	56	62	60	62	60	718
House Servants	881	965	958	940	864	979	916	790	1,010	773	1,074	1,045	11,195
Electricians	29	31	30	30	39	80	120	120	102	81	124	112	898
Photographers	62	82	60	60	54	60	60	56	57	60	62	60	733
Messengers	62	62	60	60	54	60	60	56	62	60	62	60	718
Guards' Department	186	186	180	182	164	147	150	140	155	150	155	150	1,945
Cripples and Insane	970	962	1,110	994	941	974	948	741	879	912	843	809	11,083
Doctor, daily excuses, dungeon, etc.	511	479	411	416	287	294	331	242	376	323	413	399	4,482
Patients in Hospital	648	618	772	661	611	757	735	771	922	935	934	829	8,993
To be executed	158	185	226	234	186	232	240	244	248	240	234	282	2,709
Unemployed	204	124	111	270	340	431	7,250	3,920	538	525	516	609	14,838
Totals	12,224	12,457	12,406	12,618	11,469	12,940	19,761	15,212	13,522	13,114	13,756	13,284	162,763

RESIDENT PHYSICIAN'S REPORT

FOR THE FISCAL YEAR ENDING JUNE 30, 1902.

EXHIBIT A.

Diseases Treated at Hospital Each Month during Fiscal Year ending June 30, 1902.

Diseases.	1901.						1902.					
	July	August	September	October	November	December	January	February	March	April	May	June
Bilious fever.....	11	17	12	19	15	20	14	24	8	19	15	18
Dropsy.....	1	1	1	1	---	1	2	1	1	1	1	---
Gastritis.....	2	2	3	2	---	---	---	---	---	---	---	---
Orchitis.....	1	---	---	---	---	---	---	---	---	---	---	---
Fractured leg.....	1	1	1	1	1	1	1	1	1	1	---	---
Herpes.....	1	---	---	---	---	---	---	---	---	---	---	---
Epilepsy.....	2	2	---	---	1	---	2	1	3	1	1	1
Indigestion.....	1	---	1	---	---	---	---	---	---	---	---	---
Caries.....	1	1	1	---	---	---	---	---	---	---	---	---
Lacerated ear.....	1	---	---	---	---	---	---	---	---	---	---	---
Fistula.....	1	1	1	1	1	2	2	2	2	2	2	3
Locomotor ataxia.....	1	2	2	2	2	2	2	2	2	3	3	3
Phthisis.....	2	4	3	6	5	4	4	5	4	4	4	3
General debility.....	6	9	7	7	7	7	6	8	6	7	10	8
Insane.....	1	---	---	2	---	1	---	---	---	1	---	---
Syphilis.....	1	1	1	2	1	1	1	1	1	1	1	1
Attempted suicide.....	---	---	---	1	1	---	---	---	---	---	1	---
Injured eye.....	---	1	---	---	---	---	---	---	---	---	---	---
Gastric ulcer.....	---	2	---	---	---	---	---	---	---	---	---	---
Corneal ulcer.....	---	1	1	---	---	---	---	---	---	---	---	---
Paralysis.....	1	1	1	1	1	1	1	1	1	1	1	1
Intussusception.....	1	---	---	---	---	---	---	---	---	---	---	---
Gunshot wound.....	1	---	---	---	---	---	---	---	---	---	---	---
Heart disease.....	1	1	---	---	---	---	---	---	1	1	---	---
Typhoid fever.....	1	---	---	1	---	---	---	---	---	---	---	---
Asthma.....	1	1	---	---	---	4	1	2	3	2	1	3
Amputated arm.....	1	1	1	1	---	---	---	---	---	---	---	---
Constipation.....	1	1	---	---	---	---	---	---	---	---	---	---
Amputated hand.....	1	1	---	---	---	---	---	---	---	---	---	---
Swollen hand.....	1	---	1	---	---	---	---	---	---	---	---	---
Lacerated foot.....	---	---	1	---	---	---	---	---	---	---	---	---
Pleurodynia.....	---	---	1	---	---	---	---	---	---	---	---	---
Hepatitis.....	1	---	1	2	---	---	---	---	---	---	---	1
Cramps.....	---	---	2	---	---	1	1	---	1	1	3	---
Rheumatism.....	---	---	1	2	---	---	---	---	---	2	1	1
Dysentery.....	---	---	---	2	---	---	---	---	---	1	---	---
Fractured arm.....	---	---	---	1	1	---	---	---	---	---	---	---
Piles.....	---	---	---	---	1	1	---	---	---	---	---	---
Erysipelas.....	---	---	---	---	2	1	2	1	---	---	---	---
Knife wounds.....	---	---	---	---	1	---	---	---	---	---	---	---
Dyspepsia.....	---	---	---	---	1	1	---	---	---	---	---	---
Lacerated hand.....	---	---	---	1	---	---	---	---	---	---	---	---
Hives.....	---	---	---	---	1	---	---	---	---	---	---	---
Ulcerated hip.....	---	---	---	---	1	1	1	---	---	---	---	---
Nephritis.....	---	---	---	---	---	---	1	1	1	---	---	1
Gleet.....	---	---	---	---	---	---	1	---	---	---	---	---
Scalded foot.....	---	---	---	---	---	---	2	---	---	---	---	---
Neuralgia.....	---	---	---	---	---	---	1	1	---	---	---	1

EXHIBIT A—Continued.

Diseases.	1901.						1902.					
	July	August	September	October	November	December	January	February	March	April	May	June
Ascites							1	1	1			
Pleurisy								1	1	1	1	1
Gangrene								1	1			
Otitis								1			1	
Bronchitis									1	2		
Scalp wound									1	1	1	
Amputated fingers									2	3	1	1
Ulcerated leg									1	1		
Iritis									1	1	1	1
Sprained ankle									1			
Tuberculosis										1		
Crushed fingers										1		
Hemorrhage										2	2	1
Concussion brain										1		
Pneumonia										1	1	
Rectal fissure										1	1	1
Masturbation										1	1	
Crushed arm											1	1
Burns											1	
Hydrocele												1
Tapeworm											1	
Lumbago												1
Sprained arm												1
Gastralgia												1

EXHIBIT B.

Number and Names of Prisoners who Died during the Fiscal Year ending June 30, 1902.

No.	Name.	Disease.	Date of Death.
17159	Pat Kelly	Phthisis	July 13, 1901
18177	Fred Greiner	Phthisis	Aug. 3, 1901
17565	James Hopkins	General debility	Aug. 27, 1901
15586	James Baker	Intussusception	Aug. 29, 1901
19122	George Mathews	Pulmonary hemorrhage	Aug. 29, 1901
17757	Lutes Gamus	Typhoid fever	Oct. 9, 1901
18932	Wm. B. Fritch	Dropsy and heart failure	Oct. 22, 1901
15749	James Thompson	Gastritis	Oct. 25, 1901
17996	Ramon Cayatania	Paralysis	Oct. 26, 1901
18354	G. G. Young	General debility and heart failure	Nov. 9, 1901
19137	Ramon Vogel	Gastritis	Nov. 28, 1901
17316	John Earle	Phthisis	Nov. 29, 1901
16372	Frank Hunter	Phthisis and heart disease	Dec. 15, 1901
16229	Thomas Gauriat	Heart disease	Jan. 23, 1902
18980	Lim Deo (Chinese)	Phthisis	Feb. 3, 1902
19396	Isaac Daily	Executed	Feb. 21, 1902
10696	Charles McDermott	General debility	Feb. 24, 1902
18767	Jerry Harris	Murdered, knife wounds	Mar. 13, 1902
17971	Hugh C. Griffin	Tuberculosis	Apr. 3, 1902
13732	Thomas Wilson	General debility	Apr. 9, 1902
18929	Alejo Escobar	Pulmonary hemorrhage	Apr. 16, 1902
16874	Ventura Malido	Phthisis	Apr. 22, 1902
17935	J. M. King	Phthisis	Apr. 28, 1902
16232	S. J. Thomas (Negro)	Phthisis	May 18, 1902
19275	Henry Smith (Negro)	Phthisis	June 12, 1902
19030	James T. Wheelock	Executed	June 13, 1902
19136	Reuben Thompson (Negro)	Nephritis	June 20, 1902
18212	John Stevens	Phthisis	June 21, 1902
19062	Jesus Esponsia	Phthisis	June 27, 1902

Total number of deaths during fiscal year 29

EXHIBIT C.

Number of Deaths each Month during the Fiscal Year ending June 30, 1902.

Cause of Death.	1901.						1902.					
	July	August	September	October	November	December	January	February	March	April	May	June
Phthisis	1	1			1	1		1		2	1	3
General debility		1			1			1		1		
Intussusception		1										
Pulmonary hemorrhage		1								1		
Typhoid fever				1								
Dropsy and heart failure				1								
Gastritis				1	1							
Paralysis				1								
Heart disease							1					
Executed								1				1
Murdered									1			
Tuberculosis										1		
Nephritis												1
Totals	1	4		4	3	1	1	3	1	5	1	5

EXHIBIT D.

Resumé of Work in Medical Department for Fiscal Year ending June 30, 1902.

	1901.						
	July	August	September	October	November	December	
Calls on physician	1,059	1,192	955	1,274	1,001	1,148	
Daily average	35	50	40	42	42	48	
Visited in cells	16	17	16	9	13	19	
Daily average						1	
Excused from work	52	63	48	25	19	21	
Daily average	2	3	2	1	1	1	
Patients admitted	23	30	22	32	19	23	
Patients discharged	19	21	24	27	15	22	
Monthly invalid list	1	3	4	2	3	3	
Deaths	1	4		4	3	1	

EXHIBIT D—Continued.

	1902.					
	January	February	March	April	May	June
Calls on physician.....	1,471	1,127	1,163	1,487	1,596	1,244
Daily average	49	47	49	61	53	52
Visited in cells	12	13	7	12	31	7
Daily average.....					1	
Excused from work	3	7	30	39	85	38
Daily average			1	1	3	1
Patients admitted	24	23	17	28	31	17
Patients discharged	17	20	14	26	26	17
Monthly invalid list.....	3	3	3	4	6	4
Deaths.....	1	3	1	5	1	5

P. F. CASEY, M.D.,
Resident Physician.

RESIDENT CHAPLAIN'S REPORT.

STATE PRISON, SAN QUENTIN, CAL., June 30, 1902.

To HON. MARTIN G. AGUIRRE, *Warden State Prison, San Quentin, Cal.:*

SIR: I herewith present my report as Resident Chaplain of the State Prison at San Quentin, California, for the year ending June 30, 1902.

There have been received and added to the library for the use of prisoners, as gifts from persons contributing, 516 bound volumes, and 1,840 magazines (some of which have been bound, and others distributed to the prisoners), together with 12,429 first class religious periodicals, to the same use.

One hundred and ten volumes (largely magazines) have been bound in the prison bindery, and permanently added to the library.

There have been taken from the prison library by the prisoners, during the year, a total of 21,253 volumes, an average of 1,771 volumes per month; of these, 15,480 have issued from the general, and 5,873 from the Catholic, departments of the library.

Religious services have been regularly conducted in both the general and female departments (on an average of two services each Sabbath in the former), and all have been well attended. I report with pleasure the hearty co-operation and good work of the Catholic Chaplain in every department of the work, as well as the kindly aid of the officers and guards of the institution, and the co-operation of the Warden.

Much has also been done in the way of obtaining employment for outgoing prisoners, and much satisfaction is felt at the frequent good reports received, both directly and indirectly, from such on the outside.

All of which is respectfully reported.

A. DRAHMS,
Resident Chaplain.

BIENNIAL REPORT

OF THE

WARDEN OF FOLSOM STATE PRISON

FOR THE

FIFTY-SECOND AND FIFTY-THIRD FISCAL YEARS, ENDING JUNE 30, 1902.

WARDEN'S REPORT.

STATE PRISON AT FOLSOM, July 1, 1902.

To the Honorable the State Board of Prison Directors:

GENTLEMEN: I have the honor to submit herewith to your Honorable Board my biennial report of the State Prison at Folsom for the fifty-second and fifty-third fiscal years ending June 30, 1902. Appended thereto are the reports of the Clerk, the General Overseer, and the Physician, which give you in tabular form full statements of all monetary transactions of the prison, statistical information regarding the inmates, and also a concise statement of the work performed by the Medical Department.

DISCIPLINE AND HEALTH.

The discipline of the prison is good. The punishment records show few punishments for serious offenses, and a decrease of 13 per cent on all punishments. The health of the prison is also first-class. There has been remarkable freedom from sickness, due no doubt to the sanitary precautions taken by the Turnkey's Department under the direction of the Prison Physician. During the past two years there were 28 deaths, classified as follows:

Natural deaths.....	23
Executed.....	1
Suicided.....	1
Accidental.....	3
Total.....	28

Considering the population (767) and the general tendency of the criminal element to dissipate, when at large, the death-rate for the two years is very low—1.49 per cent (computed from the number of natural deaths).

All of the inmates of the prison have been vaccinated; and while undergoing physical examination, all new-comers are also vaccinated, in accordance with a request from the State Board of Health.

PURCHASE OF LUMBER.

In September, 1901, I purchased, with your approval, from the Folsom Lumber Company, then going out of business, 12,990 feet of pine lumber, at \$2.25 per thousand, and from the Folsom Water Power

Company 48,096 feet of pine lumber at the same rate. With the El Dorado Lumber Company I made an agreement to take down their old sawmill, situated at Folsom, and to pay for the lumber contained therein (251,084 feet in all) at the rate of \$4 per thousand, all pieces under 12 feet in length to be free. Thus I received 168,234 feet free of charge. In addition to the above I purchased 4,100 feet of sugar pine and four carloads of box shooks, then lying in the box factory yard, for the small sum of \$65. These box shooks yielded 275,000 shingles, which cost the State virtually nothing, as the sugar pine alone exceeded in value the price paid for the whole lot. The El Dorado Lumber Company's log boom, which had been broken by the flood of 1895, and had been stranded on the river bank, was given to the State by the company, as it did not pay them to have it taken to pieces and shipped. This boom contained 82,810 feet of clear pine lumber, and was a great factor in improving the prison at a low cost.

The greater portion of the above-mentioned lumber was used in the construction of nineteen residences. Sixty-four thousand feet were used in the rebuilding of the rock-crusher, and 6,000 feet of Oregon pine, contained in the short mill braces (which were free of charge), were used to rebuild and repair four sections of balconies running the entire length of the cell buildings in the interior of the cell-house.

The following table will show the lumber purchased and the lumber received free of charge, and the difference between purchase price and current market rates will show the amount saved to the State:

	Purchase Price.	Market Price.
12,990 ft. pine lumber.....	@ \$2 25 = \$29 22	@ \$20 00 = \$259 80
48,096 ft. pine lumber.....	@ 2 25 = 108 22	@ 20 00 = 961 92
82,850 ft. pine lumber.....	@ 4 00 = 331 40	@ 20 00 = 1,657 00
168,234 ft. (under 12 ft.).....	free	@ 10 00 = 1,682 34
4,100 ft. sugar pine, and {	65 00	@ 30 00 = 123 00
137,000 box shooks }		
82,810 ft. pine (log-boom).....	free	@ 10 00 = 828 10
	<hr/> \$533 84	<hr/> \$5,512 16
Less purchase price.....		533 84
Saving.....		<hr/> \$4,978 32

At the present market rates (\$2.50 per 1,000), the 275,000 shingles, which were cut from the box shooks, would have cost the State \$687.50. This, together with the saving shown in the above table, makes a total lumber saving of \$5,665.82.

STONE GUARD-POSTS.

Upon the attention of your Honorable Board being called to the dilapidated and unsightly condition of some of the guard-posts, I was authorized by you to erect stone posts to take the place of Posts No. 15 and No. 17. Purchased material for the construction of these amounted

to \$279.75 and \$313.85, respectively. Post No. 15, which is 165 feet above the level of the prison yard, commands an unobstructed view of the approaches to the prison as well as of the prison grounds.

PURCHASE OF WOOD.

In accordance with an agreement entered into with C. A. Nuttall & Bros., in March, 1900, to take all the dead wood on their ranch at 75 cents per cord, brush and limbs to be free, I cut, up to July 1, 1902, 410½ cords of wood and 1,409 loads of brush and limbs. On the Natoma Land Company's property I cut, at 50 cents per cord, as per agreement with the company, 45½ cords of wood and 545 loads of brush, and on the State tract 536 loads of brush and limbs, making a total of 455½ cords of wood and 2,490 loads of brush and limbs. This effected a great saving on wood during the last two years, as the following table will show :

COMPARATIVE WOOD ACCOUNT.

	1898.	1900.
July	\$230 00	\$14 25
August	196 00	9 18
September	300 33	26 06
October	280 00	24 56
November	357 88	23 05
December	441 44	22 70
	1899.	1901.
January	\$458 00	\$45 57
February	308 13	30 92
March	379 38	8 44
April	370 00	5 99
May	304 00	6 38
June	298 00	14 65
July	247 68	3 75
August	276 00	6 19
September	107 92	10 44
October	98 89	7 00
November	171 01	12 38
December	246 63	40 00
	1900.	1902.
January	\$327 93	-----
February	297 45	-----
March	271 77	-----
April	115 20	-----
May	115 20	\$1 13
June	101 76	8 00
	<hr/>	<hr/>
	\$6,300 60	\$321 64
	321 64	
Decrease	<hr/>	<hr/>
	\$5,978 96	

THE ROCK-CRUSHER.

On June 20, 1901, the rock-crusher was visited by a fire which destroyed all of the housing, bins, belting, and other combustible material, and also damaged parts of the engine and boiler. By the Act of Legis-

lature which provided for the erection of the plant, and governed the price of the output, provision had also been made for rebuilding in case of destruction by fire or other cause. After the extent of the loss had been ascertained by expert examination, I made a formal report thereon to your Honorable Board, and through you secured the consent of the Governor, the Secretary of State, and the Attorney-General to reconstruct the plant. Schedules of the machinery and material to be furnished were drawn up and copies thereof sent to several reliable and well-known engine-builders and machinists of San Francisco. The contract for repairing and overhauling the Ohmen engine and bedplate was awarded to the San Francisco Tool Works, and was carried out by them for the price of \$930. The same firm furnished the uptakes for the elevator, the conveyor and drums, and several small parts, such as bearings, etc.

After the rock-crusher had been put together, the trial test developed the fact that the cone and liners, which had gone through the fire, had been annealed by the heat to such an extent that they were unfit for the work. A new cone and liners were purchased from the Union Iron Works of San Francisco at a cost of \$1,235.24. In rebuilding the plant it was found to be an advantage to both discipline and economy, to erect all the buildings on the east side of the canal. This kept the working line of prisoners from marching along and crossing the railroad tracks, where one fatal accident and several minor ones had already occurred. It also reduced the length of the elevator belting, which was a material saving. Although this system necessitated the purchase of two dump cars, the extra expense is more than offset by the saving on Gandy belting. The total outlay for the reconstruction of the crusher was \$6,641.06, as specified in the following table:

Engine and bedplate.....	\$930 00
Uptakes	78 51
Conveyor and drums.....	312 00
Extra iron.....	26 56
Twelve small bearings.....	15 24
Rubber belting.....	276 94
Gandy belting (elevator).....	180 83
Cones and liners.....	1,235 24
Dump cars.....	397 00
Cast-iron pulleys.....	51 50
Housing and bins	517 98
Salaries of foremen and guards.....	1,160 00
Tobacco issues	138 22
Tools, pipes, fittings, etc.....	1,121 04
Total	\$6,641 06

The original boiler, bought at second hand from San Quentin Prison, and which had gone through the fire, was used up to June 14, 1902, or about eight months after the fire; but at the visit of the boiler inspector

on that date, it was condemned as unsafe, and had to be replaced by a new one, at a cost of \$930.

SEWAGE-DISPOSAL PLANT.

By an Act of Legislature of February 25, 1899, a special appropriation of \$15,000 was made to provide for the construction of a sewage-disposal plant at this prison. The contract for the erection of the same was secured by the San Francisco Tool Works for \$12,147. The plant was completed on September 23, 1901, and the trial period of sixty days, stipulated in the contract, showed that the engines and pumps gave full satisfaction in regard to pumping capacity and economy, the former being 22 per cent above the maximum required in the specifications. However, the outlet is not situated where it might do most good by an equal distribution of the sewage, and I would recommend that the pipe-line be extended to an elevation from which greater distributing facilities could be obtained. Of the original appropriation of \$15,000 for the erection of the plant there remains a balance of \$2,246.71, and this sum or a portion thereof should be available for the purpose of extending the pipe-line to the desired location.

AIR-COMPRESSOR.

The air-compressor is entirely inadequate to the prison power demand. Whereas we should be running our rock-crusher by air, we are now put to an expense of from \$6 to \$8 per day for wood. We are sadly in need of a compressor which will develop 1,500 cubic feet of free air per minute. By long continuous use the compressive capacity of our compressor has been reduced 40 per cent, and now can furnish but 420 cubic feet of free air per minute. The following table will show the deficiency at a glance:

POWER DEMAND.		Cu. Ft.
For rock-crusher engine.....		265
For sewage plant engine.....		240
For seven hoisting engines.....		300
For six Burleigh drills.....		200
For two quarry pumps.....		40
For bellows, blacksmith shop.....		40
Total power demand.....		1,085
Present capacity.....		420
Deficiency.....		665

ELECTRIC LIGHTS AND TELEPHONE SERVICE.

The electric light and telephone lines on the prison grounds have been much improved by a thorough overhauling. New poles have been placed where most needed, and the lines have been shortened as much as straight connection and efficiency would permit. In several

instances stone guard-posts were crowned with arc lamps, which arrangement proved to be both serviceable and economical.

The telephone service between the prison and Folsom is unsatisfactory, and could be greatly improved by running a new line of poles between the two places. The present needs of the prison make this imperative.

Steps are being taken to improve the electric light plant, pursuant to instructions received by me from your Honorable Board at your meeting on May 24, 1902, to draw upon the Prison Fund for a sum not to exceed \$5,000 for that purpose. The authorized improvements, when completed, will supply the prison with inclosed arc lamps of the latest pattern, and the saving effected by the new system will soon pay for the expense incurred in the installing of the new plant.

THE RESIDENCES OF OFFICERS AND GUARDS.

In reviewing the work of the past two years I am pleased to be able to call the attention of your Honorable Board to the thoroughness with which, by your liberal support, I was enabled to improve the residence portion of the prison grounds, in looks as well as in comfort. At different times I recommended the erection of dwellings for married officers and guards, and was always granted an appropriation to cover the cost of the material to be purchased. In most all cases I was able to complete the work well within the limit of the moneys appropriated. All of the new as well as the remodeled dwellings are fitted with hot and cold water baths, patent sinks and closets, and sanitary plumbing throughout, thus securing for the occupants those comforts which are so essential to an ideal home.

In closing my report I desire to extend to the members of the Board my sincere thanks for their cordial support and advice, and also for the many favors of which I have been the recipient at their hands. To the officers and employes of the prison I would also express my thanks for their loyal collaboration in keeping up the health and discipline of the prison.

Respectfully submitted.

THOMAS WILKINSON,
Warden.

CLERK'S REPORT.

STATE PRISON AT FOLSOM, July 1, 1902.

To the Honorable the State Board of Prison Directors :

GENTLEMEN: I herewith submit for your consideration a full statement of the financial transactions of this prison for the fifty-second and fifty-third fiscal years, ending June 30, 1901, and June 30, 1902.

Very respectfully,

BRAINARD F. SMITH,

Clerk.

TABLE No. 1 A.
Cash Receipts during Fifty-second Fiscal Year ending June 30, 1901.

CASH RECEIPTS—FIFTY-SECOND FISCAL YEAR.	1900.					
	July.	August.	September.	October.	November.	December.
Cash balance from 51st fiscal year.....	\$6,136 55	\$4,861 19				
General appropriation, 51st fiscal year—Support.....						
General appropriation, 51st fiscal year—Salaries.....	3,848 34	4,406 07	\$5,299 97	\$5,926 62	\$5,381 38	\$5,668 01
General appropriation, 52d fiscal year—Support.....		3,912 90	3,985 97	3,952 50	4,035 15	4,003 42
General appropriation, 52d fiscal year—Salaries.....		375 21				281 40
State Treasury—Prison Fund.....				105 71	63 50	
State Treasury—Sewerage Fund.....		498 60			449 55	
United States Government.....		47 00	53 00	56 50	57 00	68 00
Rentals.....	52 67					
Switching cars.....	149 00	157 00	127 00	122 00	299 00	144 00
Carriage.....						13 00
Sales—Quarry.....	410 64	222 95	109 72	190 67	951 23	400 33
Meat.....	62 44	58 27	55 06	54 58	55 58	61 59
Coal.....	50				1 20	3 00
Wood.....	8 00	4 00	4 00	20 00	16 00	24 00
Coal oil.....	1 20	2 00		3 20	3 40	5 70
Vegetables.....	10 74	6 59	3 98	3 09	4 93	6 99
Ice.....	6 45	10 90	2 67			
Drugs.....	15 60	13 81	10 85	12 87	14 23	12 16
Forage.....	61 33	58 75	67 00	62 00	58 25	66 25
Shoe mendings.....	7 50	9 50	7 25	7 25	10 00	5 75
Laundry.....	32 63	30 80	37 51	31 54	35 55	29 09
Ammunition.....	6 30	13 00	7 95	2 50	4 88	6 50
Shop work.....	1 95	9 21	7 21	5 62	8 37	
Old junk, etc.....	114 55	25 00	38 87	19 00		
Milk.....	9 34	10 41	9 89	10 05		
Livestock.....	25 00	20 00				
Clothing.....						306 25
Sundries to rock-crusher.....	1 42	29 92	24 63	17 63	20 06	270 69
Groceries, etc.....	9 14	3 21	6 80	3 83	10 82	22 19
Hardware, etc.....						8 28
Meals, Officers and Guards' Mess.....						
Flannel, boots, etc.....						
Rebates—Discharged prisoners.....		5 00	5 45		1 65	13 03
Telephone and telegraph.....		80		90		5 00
Expressage.....		1 20		80		15
Salaries.....	30				5 00	1 00
Freight.....						
Sundry creditors.....						
Totals.....	\$10,971 69	\$14,793 29	\$9,873 43	\$10,608 86	\$11,486 23	\$11,426 63

TABLE NO. 1 A—Continued.

CASH RECEIPTS—FIFTY-SECOND FISCAL YEAR.	1901.					Total 1900-1901.
	January.	February.	March.	April.	May.	June.
Cash balance from 51st fiscal year						\$6,136 55
General appropriation, 51st fiscal year—Support.						4,861 19
General appropriation, 51st fiscal year—Salaries						3,848 34
General appropriation, 52d fiscal year—Support.						57,329 04
General appropriation, 52d fiscal year—Salaries						43,635 38
State Treasury—Prison Fund	\$3,963 06	\$3,945 32	\$9,723 05	\$4,987 41	\$5,515 58	656 61
State Treasury—Sewerage Fund		16 50	3,036 75			3,222 46
United States Government.		414 00			393 50	1,755 65
Rentals.	65 00	68 00	81 50	85 43	81 00	808 00
Switching cars.	132 00	122 00	159 00	104 00	59 00	1,654 00
Cartage.						13 00
Sales—Quarry	333 18	371 50	779 50	665 00	605 50	5,668 43
Meat	51 26	57 54	63 52	57 38	64 85	717 66
Coal	8 40	8 84	4 80	1 20	1 80	31 54
Wood	24 00	62 00	17 50	24 00	12 00	223 50
Coal oil	6 20	7 40	6 00	6 00	2 20	49 10
Vegetables	5 30	5 45	4 87	3 11	3 37	69 46
Ice				32	47	23 19
Drugs	17 69	15 27	12 12	15 87	22 50	182 91
Forage	63 24	54 00	50 90	53 75	60 25	702 07
Shoe mendings	6 00	10 05	13 85	9 50	9 75	103 15
Laundry	21 67	31 49	28 95	27 55	35 75	376 34
Ammunition	5 17		5 89	5 87	3 00	60 56
Shop work		2 55	2 11	13 29	7 71	76 98
Old junk, etc.	24 75		72 50	46 75	18 00	396 27
Milk.				10 61	10 84	72 95
Livestock						45 00
Clothing				3 90	10 80	320 95
Sundries to rock-crusher			119 60	52 44	47 17	575 04
Groceries, etc.	16 30	20 09	12 80	13 47	12 26	214 12
Hardware, etc.		2 85	8 39	5 49	17 71	33 89
Meals, Officers and Guards' Mess			9 25	2 25	16 00	45 75
Flannel, boots, etc.			2 09	11 28	8 09	59 45
Rebates—Discharged prisoners.	10 08	5 48				15 45
Telephone and telegraph		1 50	40	1 70	75	9 85
Expressage.			75			4 05
Salaries						5 00
Freight		1 28				1 28
Sundry creditors.			13 12	116 05		129 17
Totals	\$4,760 18	\$5,223 11	\$18,185 59	\$10,297 98	\$10,979 01	\$134,183 33

TABLE No. 1 B.
Cash Receipts during Fifty-third Fiscal Year, ending June 30, 1902.

CASH RECEIPTS—FIFTY-THIRD FISCAL YEAR.	1901.				
	July.	August.	September.	October.	November.
Cash balance from 52d fiscal year.....	\$1,199 12				
General appropriation, 52d fiscal year—Support.....		\$9,855 45			
General appropriation, 52d fiscal year—Salaries.....	3,971 66		\$8,171 74	\$4,627 26	\$4,823 99
General appropriation, 53d fiscal year—Support.....			3,910 82	3,982 50	3,951 63
General appropriation, 53d fiscal year—Salaries.....		3,957 42			402 06
State Treasury—Prison Fund.....		3,257 50		8 00	5,842 75
State Treasury—Sewerage Fund.....		350 05			230 00
United States Government.....		85 00	87 00	91 50	80 00
Rentals.....	71 00				15 00
Switching cars.....	106 00				
Lumber.....					
Sales—Meat.....	60 81	79 33	63 39	63 66	7 59
Coal.....	60			1 80	69 15
Wood.....	14 00	8 00	9 00	10 00	60
Coal oil.....	2 70	3 00	5 63	1 00	3 00
Ice.....	5 13	7 26	6 28	1 05	13 50
Vegetables.....	7 77	24 16	16 82	10 90	2 84
Shoe mendings.....	6 50	7 75	9 50	5 00	
Groceries.....	14 64	28 17	27 64	26 75	12 38
Clothes.....		8 40	3 00	2 80	6 75
Hardware.....	4 40	6 85	4 50	2 80	17 61
Dry goods.....	4 38	5 42	3 09	12 47	5 94
Milk.....		11 34	9 89	3 76	4 94
Forage.....	37 25	45 00	55 25	4 16	21 03
Meals.....	4 75	29 00	17 91	59 00	48 50
Shop work.....	8 67	3 70	5 60	1 00	64 25
Junk.....	1 25	83	3 33	5 50	2 30
Washing.....	33 12	49 77	35 18	2 57	132 30
Farm.....	11 70		49 10	32 85	40 02
Pasturage.....	5 50	9 17	10 00		3 12
Drugs.....	11 44	17 94	14 88	10 00	4 85
Ammunition.....		1 80	1 20	13 83	14 96
Old boiler.....					
Granite.....	341 50	220 20	120 45	79 50	676 60
Pigs and cows.....					
Sundries to rock-crusher.....		59 12		434 77	82 60
Sundries to San Francisco Tool Works.....		199 93			
Engineer Department.....			2 25	75	1 80
Prison mess.....					14 39
Rebates—Transportation discharged prisoners.....		3 20		5 00	1 80
Telephone and telegraph.....			1 65		70
Allowance discharged prisoners.....					3 20
Repair engine.....					60

CASH RECEIPTS—FIFTY-THIRD FISCAL YEAR.	1902.					June.	Total 1901-1902.
	January.	February.	March.	April.	May.		
Cash balance from 52d fiscal year.							\$1,199 12
General appropriation, 52d fiscal year—Support.							9,855 45
General appropriation, 52d fiscal year—Salaries.							3,971 66
General appropriation, 53d fiscal year—Support.							48,404 80
General appropriation, 53d fiscal year—Salaries.	\$10,453 27	\$5,261 12		\$8,757 26		\$6,310 16	43,520 78
State Treasury—Prison Fund.	3,963 71	3,930 81	\$3,906 77	3,965 15	\$3,979 00	3,995 32	1,915 93
State Treasury—Sewerage Fund.	67 65	338 00		490 40	366 76	407 82	9,485 01
United States Government.							981 75
Rentals.	121 71		99 00	119 25	115 00	112 85	1,147 31
Switching cars.	189 00	168 00	137 00	175 00	104 00	118 00	1,012 00
Lumber.	20						7 79
Sales—Meat.	91 58	66 70	74 33	79 38	87 95	89 13	897 75
Coal.	8 40	10 20	7 20	13 20	4 20	5 40	54 60
Wood.	13 50	27 00	18 25	13 50	8 75	18 37	153 87
Coal oil.	7 60	5 00	12 04	8 80	3 30	7 58	64 85
Ice.					10 37	5 58	35 67
Vegetables.	10 67	6 24	7 69	8 48	5 14	9 50	129 14
Shoe mendings.	7 50	14 25	5 75	10 50	5 75	12 75	98 75
Groceries.	19 14	5 36	9 22	13 48	13 98	23 37	218 31
Clothes.	5 42	49		6 89		13 00	45 94
Hardware.	3 98	7 20	5 56	9 71	23 40	12 55	104 15
Dry goods.	9 59	2 85	12 35	5 08	1 25	6 16	88 88
Milk.					1 30		25 69
Forage.	94 63	46 25	56 25	61 75	72 25	56 00	678 63
Meals.	1 00	50	75	1 25	1 25	1 25	125 41
Shop work.	1 70	10	17 22	4 10	5 60	6 22	65 13
Junk.	1 58	31 46	57	2 14	161 63	5 67	343 88
Washing.	44 75	28 24	27 10	32 43	52 08	39 78	445 23
Farm.		14 50					78 42
Pasturage.	10 40	5 50	9 50	13 35	8 12	12 60	104 49
Drugs.	10 59	11 32	13 42	9 49	17 95	11 19	161 54
Ammunition.		13				1 20	4 68
Old boiler.					225 00		225 00
Granite.	35 00	98 00	185 00	162 00	28 50	310 15	2,465 90
Pigs and cows.			10 00		40 00	40 00	90 00
Sundries to rock-crusher.							
Sundries to San Francisco Tool Works.	250 70		89 23	170 25	256 23	84 72	1,427 62
Engineer department.							139 93
Prison mess.	3 65	30			7 70	50	17 70
Rebates—Transportation discharged prisoners.		26 15					40 54
Telephone and telegraph.	1 55				3 20		17 95
Allowance discharged prisoners.	1 95	90		3 90	1 10	15	10 95
Repair engine.	5 00		5 00	5 00	15 00		30 00
Totals.	\$15,439 42	\$10,413 27	\$4,709 20	\$14,466 74	\$6,014 76	\$11,716 97	\$130,276 70

TABLE No. 2 A.

Cash Disbursements during Fifty-second Fiscal Year, ending June 30, 1901.

	1900.					
	July.	August.	September.	October.	November.	December.
CASH DISBURSEMENTS—FIFTY-SECOND FISCAL YEAR.						
Merchandise and supplies, fifty-first fiscal year	\$4,496 83	\$4,375 36	\$4,794 96	\$5,617 86		\$9,951 65
Merchandise and supplies, fifty-second fiscal year	3,848 34	3,912 08				
Salaries, fifty-first fiscal year		3,912 90	3,985 97	3,952 50	\$4,035 15	4,003 42
Salaries, fifty-second fiscal year	318 85	232 90	178 65	264 05	276 15	188 25
Discharged prisoners	19 50	12 50		2 50		
Expense account, sundries	14 20	25 45	4 60	14 60		28 60
Telephone		85		3 64		
Telegraphing		32 55	15 65	12 65		47 15
Expressage	15 00	83 00	17 00	10 60		21 50
Traveling expenses	29 65	96 51				
Advertising		160 00	80 00	80 00		160 00
Religious services	80 00	100 00		50 00		50 00
Postage	5 00					
Rentals, ranch		216 66	164 29	89 21		323 86
Freights	146 37	831 40	1,005 02	408 84	359 98	1,730 05
State Treasury—Prison Fund	844 20					
Transportation of insane prisoners						
Executions						
Wood	177 60	123 54		30 56		25 00
Coal	144 75	453 97	166 07			147 19
Experting of books			57 40			353 44
Allowance in lieu of board and lodging				15 00		37 40
Sewerage plant appropriation				105 71		75 00
Hog (boar)						63 50
Macadam						20 00
Escaped prisoners						90 00
Totals	\$10,140 29	\$14,619 67	\$10,469 61	\$10,657 72	\$4,671 28	\$17,316 01

TABLE No. 2 A—Continued.

CASH DISBURSEMENTS—FIFTY-SECOND FISCAL YEAR.	1901.					Total, 1900-1901.
	January.	February.	March.	April.	May.	June.
Merchandise and supplies, fifty-first fiscal year.			\$8,525 89	\$4,303 54	\$4,521 25	\$9,174 48
Merchandise and supplies, fifty-second fiscal year.						
Salaries, fifty-first fiscal year.	\$3,963 06	\$3,945 32	3,954 98	3,974 36	3,959 16	3,948 56
Salaries, fifty-second fiscal year.	156 10	132 50	138 90	117 95	116 60	8 70
Discharged prisoners			6 50		27 50	16 00
Expense account, sundries			22 45	13 60	12 40	84 50
Telephone				5 04		44 75
Telegraphing						7 14
Expressage			36 10	16 15	15 00	33 10
Traveling expenses			28 25	49 70	62 90	50 60
Advertising						
Religious services.			160 00	80 00	80 00	160 00
Postage			50 00	5 00	57 00	70 00
Rentals, ranch			100 00			200 00
Freights			233 80	127 32	177 98	286 30
State Treasury—Prison Fund.	1,285 55	641 02	1,128 79	1,331 91	1,102 21	1,387 67
Transportation of insane prisoners.				6 55	8 70	
Executions						
Wood						
Coal			312 56	366 56	258 47	478 89
Experting of books.					171 35	2,375 24
Allowance in lieu of board and lodging			210 00	115 00	111 78	266 15
Sewerage plant appropriation.			3,053 25			764 84
Hog (boar)						3,222 46
Macadam			37 50	15 00	11 25	20 00
Escaped prisoners						160 35
Totals	\$5,404 71	\$4,718 84	\$17,998 97	\$10,527 68	\$10,693 55	\$15,765 88
Cash on hand June 30, 1901						\$132,984 21
						1,199 12
						\$134,183 33

TABLE No. 2 B.
Cash Disbursements during Fifty-third Fiscal Year, ending June 30, 1902.

	1901.					
	July.	August.	September.	October.	November.	December.
CASH DISBURSEMENTS—FIFTY-THIRD FISCAL YEAR.						
Merchandise and supplies, fifty-second fiscal year.....		\$8,330 51	\$3,708 40	\$3,375 66	\$8,946 42	
Merchandise and supplies, fifty-third fiscal year.....	\$3,971 66					
Salaries, fifty-second fiscal year.....		3,957 42	3,910 82	3,982 50	3,951 63	\$3,972 65
Salaries, fifty-third fiscal year.....	162 80	123 25	120 15	117 50	147 05	163 05
Discharged prisoners.....			2 50		2 50	
Expense account, sundries.....			15 40	13 55	28 50	
Telephone.....		16 15				
Telegraph.....		3 25			4 02	
Expressage.....		19 10	18 10	22 90	34 85	
Traveling expenses.....		52 65	55 95	24 00	116 70	
Advertising.....		71 92				
Religious services.....		80 00	80 00	80 00	160 00	
Postage.....			50 00		105 00	
Rental, ranch.....		100 00				
Freights.....		272 50	59 97	104 43	82 81	
State Treasury—Prison Fund.....	1,036 32	664 71	1,094 87	445 04	732 57	1,392 20
Transportation of insane prisoners.....						
Wood.....						
Coal and coke.....		744 37	15 50	184 83	14 00	
Experting books.....				68 80	55 30	
Allowance in lieu of board and lodging.....		135 00	135 00	131 65	245 80	
Sewerage plant appropriation.....		3,267 50			5,850 75	
Macadam.....						
Transferred to rock-crusher.....		14 52		25 10		
State Prison Directors.....					57 41	
Locomotive repairs.....						
Typewriter repairs.....						
Refunded for meals.....						
Costs of trials of prisoners.....						
Totals.....	\$5,170 78	\$17,882 85	\$9,266 66	\$8,575 96	\$20,535 31	\$5,527 90

TABLE No. 2 B—Continued.

	1902.						Totals, 1901-1902.
	January.	February.	March.	April.	May.	June.	
CASH DISBURSEMENTS—FIFTY-THIRD FISCAL YEAR.							
Merchandise and supplies, fifty-second fiscal year.	\$8,686 14		\$4,570 24	\$8,199 63		\$4,508 07	\$8,360 51
Merchandise and supplies, fifty-third fiscal year.	3,968 71	\$3,930 81	3,906 77	3,965 15	\$3,979 00	3,995 32	41,994 56
Salaries, fifty-second fiscal year.	175 25	98 30	174 05	101 05	128 65	218 80	43,820 78
Discharged prisoners.	2 50			53 00		2 50	1,729 90
Expense account, sundries	31 55		14 95	14 40		27 90	63 00
Telephone	4 89					4 15	162 40
Telegraph	42 05		12 30	15 70		43 05	16 31
Expressage.	57 65		39 25	34 20		105 60	208 05
Traveling expenses.							486 00
Advertising							71 92
Religious services	160 00		80 00	160 00		80 00	880 00
Postage.	52 50		60 00	50 00			317 50
Rental, ranch	100 00						200 00
Freights	162 74						1,081 05
State Treasury—Prison Fund	381 63	851 49	709 29	169 01	1,131 68	105 71	10,368 48
Transportation of insane prisoners.				8 70		11 10	19 80
Wood	40 00		1 13				41 13
Coal and coke.	865 90		150 57	188 02		825 25	2,988 44
Experting books.			56 80			56 80	237 70
Allowance in lieu of board and lodging	315 00		165 00	350 00		165 00	1,622 45
Sewerage plant appropriation					366 76		9,485 01
Macadam.						67 50	67 50
Transferred to rock-crusher			6 50				21 02
State Prison Directors							25 10
Locomotive repairs			325 00				382 41
Typewriter repairs				25 00			25 00
Refunded for meals					210 00		210 00
Costs of trials of prisoners.						715 35	715 35
Totals	\$15,046 51	\$4,880 60	\$10,395 73	\$14,008 74	\$5,816 09	\$12,165 90	\$129,273 03
Cash on hand June 30, 1902.							1,003 67
							\$130,276 70

TABLE No. 3 A.

Per Capita Maintenance from July 1, 1900, to July 1, 1901.

	Inventory July 1, 1900.	Gross Issues 1900-1901.	Total.	Inventory July 1, 1901.	Balance Gross Cost.	Gross per Cap- ita per Diem.
Warden's Mess.....	\$35 69	\$410 69	\$446 38	\$34 79	\$411 59	\$0 00.146
Officers & Guards' Mess..	1,983 53	6,579 34	8,562 87	1,978 70	6,584 17	02.343
Prisoners' Mess.....	4,295 42	18,717 86	23,013 28	4,104 30	18,908 98	06.729
Hospital.....	2,578 76	1,198 58	3,777 34	2,660 36	1,116 98	00.397
Commissary.....	932 08	288 45	1,220 53	764 09	456 44	00.162
General Overseer.....	4,532 27	907 95	5,440 22	4,612 84	827 38	00.294
Captain of Guard.....	12,578 56	749 08	13,327 64	11,965 63	1,362 01	00.484
Turnkey.....	18,532 00	12,492 14	31,024 14	18,744 91	12,279 23	04.370
Engineer.....	8,804 46	1,012 52	9,816 98	7,752 50	2,064 48	00.741
Laundry.....	1,038 19	359 54	1,397 73	1,031 96	365 77	00.130
Stock.....	5,471 07	943 54	6,414 61	5,742 45	672 16	00.239
Warden's Office.....	950 00	101 81	1,051 81	945 09	106 72	00.037
Clerk's Office.....	1,138 09	149 79	1,287 88	1,098 78	189 10	00.067
Quarry.....	9,847 65	4,322 03	14,169 68	8,791 09	5,378 59	01.914
Light.....	12,286 10	789 62	13,075 72	12,318 64	757 08	00.269
Farm.....	5,080 81	854 23	5,935 04	4,674 12	1,260 92	00.448
Expense.....		2,378 16	2,378 16		2,378 16	00.846
Sales.....		1,056 46	1,056 46		1,056 46	00.376
Repairs.....		971 34	971 34		971 34	00.345
Furniture and fixtures...	5,748 41	469 90	6,218 31	5,802 13	416 18	00.148
Ice.....	3,767 34	359 79	4,127 13	3,711 98	415 15	00.147
Wooden buildings.....	23,616 11	2,585 46	26,201 57	24,712 38	1,489 19	00.530
Officers and Guards' laundry.....	50 70	93 67	144 37	45 75	98 62	00.035
Loss and gain.....		243 16	243 16		243 16	00.086
Railroad material.....	2,983 62		2,983 62	2,955 22	28 40	00.010
Salaries.....		48,506 88	48,506 88		48,506 88	17.263
Discharged prisoners.....		2,114 15	2,114 15		2,114 15	00.752
Escaped prisoners.....		14 50	14 50		14 50	00.005
Transportation of insane prisoners.....		15 25	15 25		15 25	00.005
Totals.....	\$126,250 86	\$108,685 89	\$234,936 75	\$124,447 71	\$110,489 04	

Gross per capita per diem \$0 39.32

Gross cost..... \$110,489 04

Sales and earnings—

Support of United States prisoners.....	\$1,607 10
Sales from quarry.....	5,899 88
Switching cars to Folsom.....	1,642 00
Clothing.....	320 95
Meals at Officers and Guards' mess.....	169 50
Drugs.....	182 91
Ammunition.....	60 56
Machine work at Power-House.....	11 10
Shoe shop and blacksmith shop work.....	109 58
Rent for State's houses.....	808 00
Forage (officers and guards).....	677 37
Washing (officers and guards).....	377 12
Sales (commissary).....	1,652 07
Milk.....	47 82
Freight and cartage on merchandise.....	301 04
Lumber, San Francisco Tool Works.....	70 30
	13,937 30

Net cost of maintenance..... \$96,551 74

Average daily number of prisoners..... 769.72

Average net per capita per diem 34.363+ cents.

TABLE No. 3 B.

Per Capita Maintenance from July 1, 1901, to July 1, 1902.

	Inventory July 1, 1901.	Gross Issues 1901-1902.	Total.	Inventory July 1, 1902.	Balance Gross Cost.	Gross per Capita per Diem.
Warden's Mess.....	\$34 79	\$439 47	\$474 26	\$57 61	\$416 65	\$0 00.149+
Officers and Guards' Mess.....	1,978 70	6,384 50	8,363 20	1,829 32	6,533 88	02.338+
Prisoners' Mess.....	4,104 30	21,276 63	25,380 93	4,108 36	21,272 57	07.612+
Hospital.....	2,660 36	923 40	3,583 76	2,664 85	918 91	00.329
Commissary.....	764 09	377 76	1,141 85	785 67	356 18	00.127+
General Overseer.....	4,612 84	1,499 06	6,111 90	4,738 64	1,373 26	00.491+
Captain of Guard.....	11,965 63	423 55	12,389 18	11,852 38	536 80	00.192+
Turnkey.....	18,744 91	10,298 16	29,043 07	20,027 31	9,015 76	03.227+
Engineer.....	7,752 50	1,155 96	8,908 46	7,708 26	1,200 20	00.430+
Laundry.....	1,031 96	72 11	1,104 07	682 56	421 51	00.151
Stock.....	5,742 45	1,121 30	6,863 75	5,525 23	1,338 52	00.479+
Warden's Office.....	945 09	83 05	1,028 14	956 84	71 30	00.025+
Clerk's Office.....	1,098 78	176 73	1,275 51	1,132 82	142 69	00.051+
Prison Directors.....		25 10	25 10		25 10	00.009+
Quarry.....	8,791 09	28 50	8,819 59	7,944 38	875 21	00.313+
Light.....	12,318 64	804 02	13,122 66	12,309 05	813 61	00.291+
Farm.....	4,674 12	572 10	5,246 22	4,547 39	698 83	00.250+
Expense.....		3,432 84	3,432 84		3,432 84	01.228+
Sales.....		1,677 04	1,677 04		1,677 04	00.600+
Repairs.....		826 72	826 72		826 72	00.296+
Furniture and fix- tures.....	5,802 13	172 42	5,974 55	5,802 13	172 42	00.063+
Ice.....	3,711 98	470 69	4,182 67	3,711 98	470 69	00.168+
Wooden buildings.....	24,712 38	4,067 64	28,780 02	26,068 04	2,711 98	00.971
Officers and Guards' laundry.....	45 75	90 89	136 64	72 08	64 56	00.023+
Sewerage plant.....		13,657 10	13,657 10	13,486 18	170 92	00.061+
Transportation in- sane prisoners.....		30 90	30 90		30 90	00.011+
Railroad material.....	2,955 22	2 34	2,957 56	2,773 96	183 60	00.065+
Salaries.....		48,435 78	48,435 78		48,435 78	17.332+
Discharged prisoners		1,679 15	1,679 15		1,679 15	00.600
Allowance in lieu of board and lodging.....		1,872 60	1,872 60		1,872 60	00.670
Totals.....	\$124,447 71	\$122,077 51	\$246,525 22	\$138,785 04	\$107,740 18	
Gross per capita per diem.....						\$0 38.552

Gross cost..... \$107,740 18

Sales and earnings—

Support of United States prisoners.....	\$813 70
Quarry sales (stone).....	1,226 80
Quarry sales (blacksmith and junk).....	307 15
Farm sales (stock and junk).....	168 42
Farm sales (pasturage).....	104 49
Forage to officers and guards.....	678 63
Rent for State's houses.....	1,147 31
Sales from commissary to officers and guards.....	2,327 10
Washing for officers and guards.....	441 59
Switching cars and cartage by locomotive.....	317 87
Loss and gain on merchandise.....	119 38
Drugs to officers and guards.....	162 46
Ammunition to officers and guards.....	4 68
Shop work—General Overseer.....	64 91
Clothes—Turnkey.....	22 21
Junk sales—Prison mess.....	40 54
Junk sales—Engineer.....	22 20

7,969 44

Net cost of maintenance..... \$99,770 74

Average daily number of prisoners..... 765.65—

Average net per capita per diem..... 35.7+ cents.

TABLE No. 4 A.

Assets and Liabilities, July 1, 1901.

AVAILABLE ASSETS:		
Cash on hand	\$1,199 12	
Cash balance, State Treasury (Prison Fund)	28,170 46	
Cash balance, State Treasury (General Fund) —		
Salaries	\$3,997 05	
Support	11,756 29	
	15,753 34	
Due from sundry debtors	2,103 22	
		\$47,226 14
LIABILITIES:		
Unpaid supply claims, June, 1901	\$9,855 45	
Unpaid salaries for June, 1901	3,971 66	
Amount due to sundry creditors	49 32	
		13,876 43
Excess of available assets		\$33,349 71
PERMANENT ASSETS:		
Warden's Mess	\$34 79	
Officers and Guards' Mess	1,978 70	
Prisoners' Mess	4,104 30	
Hospital Department	2,660 36	
Commissary Department	764 09	
General Overseer's Department	4,612 84	
Captain of the Guard's Department	11,965 63	
Turnkey's Department	18,744 91	
Engineer's Department	7,752 50	
Laundry Department	1,031 96	
Stock Department	5,742 45	
Warden's Office	945 09	
Clerk's Office	1,098 78	
Quarry Department	8,791 09	
Light Department	12,318 64	
Farm Department	4,674 12	
Furniture and fixtures (Warden's house)	5,802 13	
Prison improvements	661,152 94	
Ice Department	3,711 98	
Wooden buildings	24,712 38	
Officers and Guards' Laundry	45 75	
Merchandise (supplies and stock)	9,252 72	
Railroad material	2,955 22	
Real estate	15,000 00	
		809,853 37
Total excess of assets		\$843,203 08

TABLE No. 4 B.

Assets and Liabilities, July 1, 1902.

AVAILABLE ASSETS:		
Cash on hand.....	\$1,003 67	
Cash balance, State Treasury (Prison Fund).....	35,695 96	
Cash balance, State Treasury (General Fund)—		
Salaries.....	\$3,979 22	
Support.....	11,595 20	
	15,574 42	
Due from sundry debtors.....	1,020 76	
		\$53,294 81
LIABILITIES:		
Unpaid supply claims for May, 1902.....	\$5,668 30	
Unpaid supply claims for June, 1902.....	6,628 14	
Unpaid salaries for June, 1902.....	3,955 00	
Amount due to sundry creditors.....	36 30	
		16,287 74
Excess available assets.....		\$37,007 07
PERMANENT ASSETS:		
Warden's Mess.....	\$57 61	
Officers and Guards' Mess.....	1,829 32	
Prisoners' Mess.....	4,108 36	
Hospital Department.....	2,664 85	
Commissary's Department.....	785 67	
General Overseer's Department.....	4,738 64	
Captain of the Guard's Department.....	11,852 38	
Turnkey's Department.....	20,027 31	
Engineer's Department.....	7,708 26	
Laundry Department.....	682 56	
Stock Department.....	5,525 23	
Warden's Office.....	956 84	
Clerk's Office.....	1,132 82	
Quarry Department.....	7,944 38	
Light Department.....	12,309 05	
Farm Department.....	4,547 39	
Furniture and fixtures (Warden's house).....	5,802 13	
Prison improvements.....	664,924 35	
Ice Department.....	3,711 98	
Wooden buildings.....	26,068 04	
Officers and Guards' Laundry.....	72 08	
Sewerage plant.....	13,486 18	
Merchandise.....	7,073 72	
Railroad material.....	2,773 96	
Real estate.....	15,000 00	
		825,783 11
Total excess of assets.....		\$862,790 18

TABLE No. 5 A.

Trial Balance at the End of the Fifty-second Fiscal Year, ending June 30, 1901.

	Trial Balance, June 30, 1901.		Inventory, July 1, 1901.	State Prison at Folsom, July 1, 1901.		Trial Balance, July 1, 1901.	
	Dr.	Cr.		Dr.	Cr.	Dr.	Cr.
Cash.....	\$1,199 12					\$1,199 12	
Warden's Mess.....	446 38		\$34 79	\$411 59		34 79	
Officers and Guards' Mess.....	8,393 37		1,978 70	6,414 67		1,978 70	
Prisoners' Mess.....	22,811 25		4,104 30	18,706 95		4,104 30	
Hospital Department.....	3,594 43		2,660 36	934 07		2,660 36	
Commissary Department.....	1,220 53		764 09	456 44		764 09	
General Overseer's Department.....	5,383 98		4,612 84	771 14		4,612 84	
Captain of the Guard's Department.....	13,267 08		11,965 63	1,301 45		11,965 63	
Turnkey's Department.....	29,319 22		18,744 91	10,574 31		18,744 91	
Engineer's Department.....	9,805 88		7,752 50	2,053 38		7,752 50	
Laundry Department.....	1,397 73		1,031 96	365 77		1,031 96	
Stock Department.....	5,737 24		5,742 45	\$5 21		5,742 45	
Warden's Office.....	1,051 81		945 09	106 72		945 09	
Clerk's Office.....	1,287 88		1,098 78	189 10		1,098 78	
Quarry Department.....	14,116 34		8,791 09	5,325 25		8,791 09	
Light Department.....	13,075 72		12,318 61	757 08		12,318 64	
Farm Department.....	5,887 22		4,674 12	1,213 10		4,674 12	
Expense account.....	2,378 16			2,378 16			
Sales.....		595 61			595 61		
Repairs.....	163 34			163 34			
Furniture and fixtures (Warden's house).....	6,218 31		5,802 13	416 18		5,802 13	
Prison improvements.....	661,152 94		661,152 94			661,152 94	
Ice Department.....	4,127 13		3,711 98	415 15		3,711 98	
Wooden buildings.....	26,201 57		24,712 38	1,489 19		24,712 38	
Officers and Guards' Laundry.....		232 75	45 75		278 50	45 75	
Merchandise.....	9,252 72		9,252 72			9,252 72	
Loss and gain.....	172 86			172 86			
Freight and cartage.....		301 04			301 04		
State Prison at Folsom.....		809,385 13			809,385 13		\$827,449 74

Railroad material	2,983 62		2,955 22	28 40		2,955 22
Real estate	15,000 00		15,000 00			15,000 00
Rock-crusher surplus fund		4,942 40			4,942 40	
Salaries	48,506 88			48,506 88		
Sundry creditors		9,855 45				9,855 45
Discharged prisoners	2,093 05			2,093 05		
Sundry officers and guards		3,971 66				3,971 66
State Treasury (Prison Fund)	28,170 46				28,170 46	
General Appropriation—Support		62,190 23			62,190 23	
General Appropriation—Salaries		47,483 72			47,483 72	
Quarry sales		5,899 88			5,899 88	
Locomotive account		1,642 00			1,642 00	
Rock-crusher	59 12				59 12	
Sewerage plant	468 26				468 26	
Sundry debtors:						
United States of America	350 05				350 05	
Southern Pacific Co.	70 00				70 00	
C. H. Ward	16 25				16 25	
T. H. Betz	4 00				4 00	
Stockton & Mokelumne Canal Co.	118 50				118 50	
B. F. Smith		2 19				2 19
J. L. House	190 33				190 33	
Otto Harder & Son	93 93				93 93	
T. I. Barron	9 82				9 82	
V. M. Colt	283 18				283 18	
J. L. Maude		34 00				34 00
Sacramento Electric, Gas and Railroad Co.		13 13				13 13
San Francisco Tool Works	199 33				199 33	
James Carroll	141 45				141 45	
Clark & Henery	99 00				99 00	
Escaped prisoners	14 50			14 50		
Transportation of insane prisoners	15 25			15 25		
Balance to credit of State Prison at Folsom						
July 1, 1901				827,449 74		
	\$946,549 19	\$946,549 19	\$809,853 37	\$932,723 72	\$932,723 72	\$841,326 17
						\$841,326 17

TABLE No. 5 B.—Trial Balance at the End of the Fifty-third Fiscal Year, ending June 30, 1902.

	Trial Balance, June 30, 1902.		Inventory, July 1, 1902.	State Prison at Folsom, July 1, 1902.		Trial Balance, July 1, 1902.
	Dr.	Cr.		Dr.	Cr.	
Cash	\$1,003 67		\$57 61	\$416 65		\$1,003 67
Warden's Mess	474 26					57 61
Pasturage account		\$104 49			\$104 49	
Officers and Guards' Mess	8,363 20		1,829 32	6,533 88		1,829 32
Prisoners' Mess	25,380 93		4,108 36	21,272 57		4,108 36
Prisoners' Mess, sales		40 54			40 54	
Hospital	3,583 76		2,664 85	918 91		2,664 85
Hospital, sales account		162 46			162 46	
Commissary	1,141 85		785 67	356 18		785 67
Ammunition		4 68			4 68	
General Overseer	6,111 90		4,738 64	1,373 26		4,738 64
General Overseer, sales account		64 91			64 91	
Captain of the Guard	12,389 18		11,852 38	536 80		11,852 38
Turnkey	29,043 07		20,027 31	9,015 76		20,027 31
Turnkey Department, sales		22 21			22 21	
Engineer	8,908 46		7,708 26	1,200 20		7,708 26
Engineer Department, sales		22 20			22 20	
Laundry	1,104 07		682 56	421 51		682 56
Stock	6,863 75		5,525 23	1,338 52		5,525 23
Forage		678 63			678 63	
Warden's Office	1,028 14		956 84	71 30		956 84
Clerk's Office	1,275 51		1,132 82	142 69		1,132 82
Prison Directors	25 10			25 10		
Quarry Department	8,819 59		7,944 38	875 21		7,944 38
Quarry Department, sales		307 15			307 15	
Light	13,122 66		12,309 05	813 61		12,309 05
Farm	5,246 22		4,547 39	698 83		4,547 39
Farm, sales account		168 42			168 42	
Expense						
Sales (Commissary)	3,432 84			3,432 84		
Repairs		650 06			650 06	
Rental	826 72			826 72		
Furniture and fixtures		1,147 31			1,147 31	
Prison improvements	5,974 55		5,802 13	172 42		5,802 13
Ice	664,924 35		664,924 35			664,924 35
Wooden buildings	4,182 67		3,711 98	470 69		3,711 98
Officers and Guards' Laundry	28,786 02		26,068 04	2,711 98		26,068 04
	136 64		72 08	64 56		72 08

Officers and Guards' Laundry, sales account.	441 59	13,486 18	441 59	13,486 18	441 59
Sewerage plant		7,073 72		7,073 72	
Merchandise		30 90		30 90	
Transportation insane prisoners					
Loss and gain.	119 38		119 38		
Sewerage Fund	12,753 29		12,753 29		
State Prison at Folsom	828,480 52		828,480 52		
Railroad material		2,773 96		2,773 96	
Real estate		15,000 00		15,000 00	
Salaries		48,435 78		48,435 78	
Sundry creditors	12,296 44				
United States prisoners	813 70		813 70		
Discharged prisoners		1,679 15		1,679 15	
Allowance in lieu of board and lodging		1,872 60		1,872 60	
State Treasurer, Prison Fund					
General Appropriation—Support 52d year	9,855 45		9,855 45		
General Appropriation—Support 53d year	48,404 80		48,404 80		
General Appropriation—Salaries 52d year	3,971 66		3,971 66		
General Appropriation—Salaries 53d year	43,520 78		43,520 78		
Sundry officers and guards	3,955 00				
Quarry sales of granite	1,226 80		1,226 80		
Locomotive	317 87		317 87		
Sundry debtors—					
Southern Pacific Company	194 00			194 00	
B. F. Smith	2 19			2 19	
J. C. Scroggs	2 50			2 50	
Kennett Foundry and Machine Works	10 00			10 00	
J. S. Bogges	7 00			7 00	
Sutter County	1 00			1 00	
J. M. Cress	3 00			3 00	
J. S. Hill	3 00			3 00	
C. W. Nickerson	1 50			1 50	
J. L. House	60 08			60 08	
T. I. Barron	13 82			13 82	
V. M. Colt	329 93			329 93	
J. L. Maude	19 48			19 48	
Sacramento Electric, Gas, and Railway Co.	10 13			10 13	
Sacramento County	5 00			5 00	
Bernstine Bros.	96 84			96 84	
J. F. Hoerl					
United States of America	182 00			182 00	
Rock-Crusher	111 09			111 09	
Balance to Cr. State Prison at Folsom July 1, 1902.				847,215 76	
Totals	\$969,566 64	\$825,783 11	\$953,278 90	\$863,503 50	\$863,503 50

TABLE No. 6.

Receipts from Farm for the Two Fiscal Years ending June 30, 1901, and June 30, 1902.

Product.	1900-1901.	1901-1902.	Total Biennial Product.
Artichokes	80 $\frac{3}{4}$ doz.	6 doz.	86 $\frac{3}{4}$ doz.
Apples	1,050 lbs.	1,800 lbs.	2,850 lbs.
Apricots	150 lbs.		150 lbs.
Beans, string	964 lbs.	838 lbs.	1,802 lbs.
Beans, Lima	13 lbs.	167 lbs.	180 lbs.
Beets	3,933 lbs.	4,483 lbs.	8,416 lbs.
Beef		7,687 lbs.	7,687 lbs.
Blackberries	274 lbs.	255 lbs.	529 lbs.
Celery	70 $\frac{3}{4}$ doz.	79 $\frac{1}{2}$ doz.	149 $\frac{9}{16}$ doz.
Corn	456 doz.	570 $\frac{1}{2}$ doz.	1,026 $\frac{1}{2}$ doz.
Cauliflower	48 $\frac{5}{12}$ doz.	71 $\frac{5}{6}$ doz.	119 $\frac{7}{12}$ doz.
Cucumbers	191 $\frac{2}{3}$ doz.	416 $\frac{1}{2}$ doz.	607 $\frac{1}{3}$ doz.
Cabbage	4,547 lbs.	3,806 lbs.	8,353 lbs.
Carrots	8,685 lbs.	6,195 lbs.	14,880 lbs.
Egg plant	326 lbs.	2,025 lbs.	2,351 lbs.
Eggs	278 $\frac{1}{12}$ doz.	159 doz.	437 $\frac{1}{12}$ doz.
Eggs, milk and chickens		\$120	*\$120
Figs	123 lbs.		123 lbs.
Grapes	21,050 lbs.	13,500 lbs.	34,550 lbs.
Hay	151 tons.	153 tons.	304 tons.
Kohl-rabi		75 lbs.	75 lbs.
Lettuce	517 $\frac{1}{4}$ doz.	369 $\frac{1}{6}$ doz.	886 $\frac{5}{12}$ doz.
Leeks	21 $\frac{1}{4}$ doz.		21 $\frac{1}{4}$ doz.
Milk	3,554 gal.	11,842 gal.	15,396 gal.
Melons, musk	29 $\frac{1}{3}$ doz.	23 $\frac{3}{4}$ doz.	53 $\frac{1}{12}$ doz.
Melons, water	$\frac{1}{8}$ doz.	2 $\frac{5}{8}$ doz.	3 doz.
Okra		10 lbs.	10 lbs.
Onions, green	1,725 $\frac{1}{2}$ doz.	1,459 $\frac{1}{6}$ doz.	3,184 $\frac{2}{3}$ doz.
Onions, dry	6,500 lbs.	2,785 lbs.	9,285 lbs.
Oranges	47 doz.		47 doz.
Oyster plant	156 lbs.		156 lbs.
Meat sets		14	14
Peaches	30 lbs.	10,918 lbs.	10,948 lbs.
Pears		1,150 lbs.	1,150 lbs.
Parsnips	1,762 lbs.	1,592 lbs.	3,354 lbs.
Peas	1,303 lbs.	550 lbs.	1,853 lbs.
Pumpkins	303 lbs.	741 lbs.	1,044 lbs.
Parsley		9 lbs.	9 lbs.
Peppers, green	465 doz.	557 doz.	1,022 doz.
Potatoes, sweet	511 lbs.	450 lbs.	961 lbs.
Potatoes, Irish	1,203 lbs.	270 lbs.	1,473 lbs.
Pork	9,839 lbs.	8,726 lbs.	18,565 lbs.
Rhubarb	631 lbs.	719 lbs.	1,350 lbs.
Radishes	95 doz.	121 $\frac{1}{3}$ doz.	107 $\frac{1}{3}$ doz.
Squash	2,819 lbs.	1,327 lbs.	4,146 lbs.
Spinach	1,396 lbs.	1,300 lbs.	2,696 lbs.
Strawberries	106 lbs.		106 lbs.
Straw	3 $\frac{7}{12}$ tons.		3 $\frac{7}{12}$ tons.
Tomatoes	12,019 lbs.	33,158 lbs.	45,177 lbs.
Turnips	10,426 lbs.	5,948 lbs.	16,374 lbs.

* Estimated valuation.

TABLE No. 7.

Meals Served at Officers and Guards' Mess during the Year beginning July 1, 1901, and ending June 30, 1902.

Month.	Regulars.	Visitors.	Sheriffs.	Ministers.	Prisoners.	Cooks and Waiters.	Lunches to Guards.	Lunches to Band.	Night Guards.	Totals.
1901—July	4,956	140	30	7	619	1,209	780	92	561	8,394
August	4,974	114	27	10	603	1,209	748	104	560	8,349
September	4,865	110	21	7	604	1,170	611	130	541	8,059
October	5,004	131	35	14	778	1,209	684	104	558	8,517
November	4,748	45	34	15	671	1,170	527	104	540	7,854
December	4,876	20	33	16	687	1,209	685	135	558	8,219
1902—January	4,982	29	43	12	706	1,209	684	105	558	8,328
February	4,432	35	32	10	633	1,092	649	111	504	7,548
March	4,918	39	31	11	740	1,209	687	138	556	8,329
April	4,849	30	33	12	742	1,170	657	104	540	8,137
May	4,990	51	19	11	756	1,209	681	103	556	8,376
June	4,769	64	16	5	822	1,170	553	120	540	8,059
Totals	58,413	808	354	130	8,361	14,235	7,946	1,350	6,572	98,169

Net cost for year 1901-1902.....

\$6,533 88

Total number of meals furnished.....

98,169

Average cost per meal

.0665+

TABLE

Rock-Crusher Transactions from

COST OF ROCK-CRUSHER PLANT.

Cash received from the General Fund.....	\$24,985 61	
Cash received from the Revolving Fund.....	4,805 35	
		\$29,790 96
Cash received from special appropriation, Von Geldern		344 80
Total cost of plant.....		\$30,135 76

COST OF CRUSHING ROCK.

Rock-crusher expenditures and claims due June 30, 1897.....	\$47,492 39
Inventory July 1, 1897.....	33,009 78

Cost of crushing 84,785 ³⁰⁵ / ₁₀₀ tons of rock	\$14,482 61
Cost per ton, 1896-1897	17.199 cents.

Inventory July 1, 1897.....	\$33,009 78
Supply purchases to June 30, 1898.....	18,387 12
	\$51,396 90
Inventory July 1, 1898.....	34,834 55

Cost of crushing 79,996 ¹ / ₄ tons of rock	\$16,562 35
Cost per ton, 1897-1898	20.7 cents.

Inventory July 1, 1898.....	\$34,834 55
Supply purchases to June 30, 1899.....	9,088 53
	\$43,923 08
Inventory July 1, 1899.....	34,682 94

Cost of crushing 34,840 ⁵ / ₁₀₀ tons of rock	\$9,240 14
Cost per ton, 1898-1899.....	26.5 cents.

Inventory July 1, 1899.....	\$34,682 94
Supply purchases to June 30, 1900.....	8,002 93
	\$42,685 87
Inventory July 1, 1900.....	34,448 13

Cost of crushing 32,748 ¹ / ₁₀₀ tons of rock	\$8,237 74
Cost per ton, 1899-1900.....	25.15 cents.

Inventory July 1, 1900.....	\$34,448 13
Supply purchases to June 30, 1901.....	\$9,804 40
Less rebates on supplies.....	19 37
	9,785 03
	\$44,233 16
Inventory July 1, 1901.....	\$17,130 93
Loss by fire June 20, 1901 (estimated).....	17,097 20
	34,228 13

Cost of crushing 45,217 ³³³ / ₁₀₀ tons of rock	\$10,005 03
Cost per ton, 1900-1901.....	22.13 cents (estimated).

Inventory July 1, 1901.....	\$17,130 93
Rebuilding account	6,441 06
Supply purchases to June 30, 1902.....	8,866 71
	\$32,438 70
Inventory July 1, 1902.....	23,987 20

Cost of crushing 32,631 ⁸⁵ / ₁₀₀ tons of rock	\$8,451 50
Cost per ton, 1901-1902.....	25.90 cents.

Cost of crushing 310,222 ³⁸⁵ / ₁₀₀ tons of rock from June 10, 1896, to June 30, 1902..	\$66,979 37
Cost per ton.....	21.59 cents.

PROFIT OF CRUSHING ROCK.

129,998,480 pounds sold, at 25 cents per ton.....	\$16,249 82
490,447,470 pounds sold, at 30 cents per ton.....	73,568 04
	\$89,817 86
620,445,950 pounds crushed, at cost of 21.59 cents per ton.....	66,979 37
Total profit from June 10, 1896, to July 1, 1902	\$22,838 49

No. 8.

June 10, 1896, to July 1, 1902.

CASH ASSETS AND LIABILITIES JULY 1, 1902.

Cash Assets.

Cash on hand June 30, 1902.....		\$4,548 76
Amount in Revolving Fund.....	\$3,595 63	
Less amount to Rebuilding Fund (contingent).....	1,452 92	
		2,142 71
Due from sundry debtors—		
Southern Pacific Co.	\$1,522 80	
Sacramento Electric, Gas and Railway Co.....	20 47	
Holt Manufacturing Co.	9 56	
T. E. Clark	97	
City of Auburn	47 97	
Pioneer Winery	1 67	
H. E. Barber	20	
Sacramento County	632 45	
City of Sacramento.....	10 25	
State Prison at Folsom	33 60	
Clerk & Henery	16 37	
J. D. Shearer	1 22	
F. W. Harkin	1 35	
W. J. Hall	10 10	
J. P. Cox	3 00	
Suspense account	3 14	
		2,315 12
		\$9,006 59

Liabilities.

Due sundry creditors, February, 1902.....	\$1,050 24	
Due sundry creditors, May, 1902.....	1,135 61	
Due sundry creditors, June, 1902.....	2,897 11	
Due for macadam prepaid—		
A. Teichert.....	\$4 42	
C. S. Brooks	16 80	
Luce & Glover.....	8 00	
Town of Dixon.....	17	
T. M. Burns	23 26	
Oswald Hardie	1 29	
Brighton Milling Co.....	82	
L. R. Meade	1 08	
Turner Bros.	26	
J. McGillivray.....	105 75	
J. F. Hoerl	24 17	
	186 02	
		5,268 98
Cash assets available.....		\$3,737 61

SALES AND DISPOSAL OF SALE PROCEEDS.

11,132 cars = $310,222\frac{185}{200}$ tons = 620,445,950 pounds shipped.

129,998,480 pounds, at 25 cents per ton	\$16,249 82	
490,447,470 pounds, at 30 cents per ton	73,568 04	
		\$89,817 86
620,445,950 lbs.		
Deposited in Revolving Fund.....	\$70,874 58	
Less rebates on supplies	19 37	
	\$70,855 21	
Deposited in General Fund	1,237 13	
Deposited in State Prison Fund.....	11,047 66	
Cash on hand	\$4,548 76	
Less macadam prepaid.....	186 02	
	4,362 74	
Due for metal sold	2,315 12	
		\$89,817 86

TABLE No. 9.

Road Metal Crushed and Shipped from June 10, 1896, to June 30, 1902.

Months and Years.	No. Cars Shipped.	Sizes of Crushed Rock, in Pounds.			Total Weights, in Pounds.	Value of Crushed Rock.		Total Value.
		2½-Inch.	1½-Inch.	¾-Inch.		25c. Ton.	30c. Ton.	
1896—June	112	2,801,760	1,584,600	1,628,200	5,914,560	\$739 32	---	\$739 32
July	161	4,050,800	2,136,950	2,487,950	8,675,700	1,084 47	---	1,084 47
August	303	7,264,670	4,022,260	4,581,720	15,868,650	1,983 57	---	1,983 57
September	331	9,611,750	4,215,400	4,181,710	18,008,860	2,251 10	---	2,251 10
October	333	9,010,545	4,009,825	4,809,960	17,830,330	2,228 79	---	2,228 79
November	247	6,621,880	2,837,950	3,289,050	12,728,880	1,591 11	---	1,591 11
December	270	7,480,100	3,935,100	3,233,450	14,654,650	1,831 83	---	1,831 83
1897—January	189	5,143,850	2,642,800	2,239,860	10,026,510	1,253 32	---	1,253 32
February	83	1,927,460	1,289,400	1,212,260	4,429,120	553 64	---	553 64
March to 11th	20	477,150	311,600	272,600	1,061,350	132 67	---	132 67
March 11th to 31st	118	1,889,760	2,663,680	1,773,800	6,327,240	778 22	\$15 23	793 45
April	184	4,757,510	2,686,610	2,367,950	9,812,070	508 28	861 89	1,370 17
May	415	10,575,910	6,316,610	5,491,960	22,384,480	1,140 97	1,988 51	3,129 48
June	400	9,396,740	6,910,720	5,540,750	21,848,210	172 53	3,070 19	3,242 72
1897—July	285	6,767,490	4,701,290	4,023,810	15,492,590	---	2,323 89	2,323 89
August	284	6,533,100	4,744,750	3,978,160	15,256,010	---	2,288 42	2,288 42
September	328	8,663,700	4,206,750	4,393,370	17,263,820	---	2,589 57	2,589 57
October	342	9,239,410	5,206,800	4,420,710	18,866,920	---	2,830 04	2,830 04
November	350	9,282,100	5,433,350	4,834,560	19,550,010	---	2,932 50	2,932 50
December	332	7,374,000	6,313,600	4,574,150	18,261,750	---	2,739 26	2,739 26
1898—January	146	1,598,550	3,911,260	2,703,250	8,213,060	---	1,231 96	1,231 96
February	12	401,100	170,400	110,650	682,150	---	102 32	102 32
March	127	2,395,150	2,628,950	2,304,370	7,328,470	---	1,099 27	1,099 27
April	180	3,631,110	4,176,750	2,514,950	10,322,810	---	1,548 42	1,548 42
May	245	6,842,750	3,790,410	3,398,300	14,031,460	---	2,104 72	2,104 72
June	261	5,181,750	5,201,850	4,339,850	14,723,450	---	2,208 52	2,208 52
July	106	1,494,900	1,932,000	2,221,450	5,648,350	---	847 26	847 26
August	69	1,956,400	1,110,450	1,780,100	3,846,950	---	577 06	577 06
September	103	1,318,250	3,430,950	1,177,310	5,926,510	---	888 97	888 97
October	167	2,934,850	2,960,000	3,646,450	9,541,300	---	1,431 21	1,431 21
November	129	2,265,950	3,206,650	1,816,450	7,289,050	---	1,093 38	1,093 38
December	40	225,850	1,173,150	861,500	2,260,500	---	339 09	339 09

1899—January	58	272,050	1,416,350	1,575,400	3,263,800	489 58
February	73	175,850	680,150	3,332,450	4,188,450	628 28
March	46	55,850	748,850	1,855,950	2,660,650	399 13
April	125	1,617,100	3,038,600	2,514,600	7,170,300	1,075 59
May	4	4,593,470	2,538,050	2,421,260	9,552,780	1,432 93
June	151	2,625,310	3,602,750	2,111,350	8,339,410	1,432 93
July	53	479,350	1,150,100	1,248,950	2,878,300	1,250 93
August	60	1,005,050	996,870	1,365,160	3,367,080	431 73
September	86	2,482,500	919,600	1,523,500	4,925,600	505 08
October	52	610,200	1,186,350	1,132,380	4,925,600	738 87
November	113	1,939,600	2,970,560	1,797,750	6,707,910	439 34
December	131	2,516,010	3,164,110	2,279,950	7,960,070	1,006 22
1900—January	134	2,378,850	3,409,610	2,185,530	7,973,950	1,194 02
February	85	665,250	2,182,470	2,000,960	4,848,680	1,196 12
March	113	436,250	3,187,850	3,203,250	6,827,350	727 33
April	88	1,139,450	2,157,450	1,816,960	5,113,860	1,024 15
May	73	526,550	2,087,560	986,050	4,200,160	767 10
June	137	2,948,000	2,631,800	2,184,280	7,764,080	630 05
1900—July	172	2,847,800	4,368,700	2,219,000	9,435,500	1,164 63
August	151	3,280,400	3,609,200	1,640,650	8,530,250	1,415 36
September	165	3,559,550	3,639,700	2,031,000	9,210,250	1,279 53
October	194	4,166,450	4,850,810	1,780,900	10,798,160	1,381 55
November	193	2,830,200	5,599,300	2,016,480	10,445,980	1,619 74
December	167	825,750	6,473,440	1,939,550	9,238,740	1,566 87
1901—January	138	665,250	5,541,000	1,338,550	7,544,800	1,385 86
February	112	977,300	4,380,950	1,014,660	6,372,910	1,131 76
March	117	732,050	3,948,250	2,000,100	6,680,400	955 96
April	44	863,250	896,050	696,850	2,456,150	1,002 12
May	85	1,368,850	2,436,100	873,450	4,678,400	368 45
June	96	966,970	3,105,650	971,770	5,044,390	701 76
November	150	705,850	705,850	118,600	824,450	756 70
December	200	3,913,400	4,955,700	2,616,150	11,485,250	123 67
1902—January	169	1,007,600	6,559,250	2,176,900	9,742,750	1,722 79
February	168	462,650	5,300,850	2,393,000	8,156,500	1,461 47
March	136	1,823,450	4,670,170	3,172,650	9,666,270	1,223 51
April	112	602,250	3,692,800	2,182,830	6,477,880	1,450 01
May	226	1,406,700	11,225,300	2,565,950	15,197,950	971 69
June	52	241,200	2,643,950	826,650	3,711,800	2,279 71
Totals	11,132	218,110,055	236,134,865	166,201,030	620,445,950	556 78
				\$16,249 82	\$73,568 04	\$89,817 86

N. B.—No rock was crushed during the months of July, August, September and October, 1901, owing to the crusher having been destroyed by fire.

TABLE No. 10.

Destination of Road Metal Crushed and Shipped from June 10, 1896, to June 30, 1902.

Cars.	Destination.	Weight— Pounds.
74	Armstrong Switch	3,949,450
2	Acampo	115,800
33	Auburn	1,878,900
1	Ben Ali	51,500
4	Brighton	227,750
6	Buhach Switch	327,850
2	Bruceville	99,450
20	Bakersfield	1,127,100
4	Byron	232,800
4	Bogue's Spur	224,400
1	Ceres	56,050
7	Colfax	402,750
6	Dutch Flat	336,900
24	Dixon	1,411,750
58	Elk Grove	3,240,650
----	Forest Grove (wagon load)	16,000
33	Florin	1,879,500
11	Folsom	623,850
1	Galt	59,300
16	Grass Valley	969,400
589	Homestead	29,855,820
11	Lodi	590,150
1	Lomo	52,600
1	Lathrop	56,950
997	Marysville	55,388,170
34	Modesto	1,882,100
3	McConnells	161,300
3	Mills	150,000
14	Madera	823,550
11	Martinez	630,200
1	Newcastle	60,150
2	Oswald	109,600
2	Ostroms	110,250
15	Placerville	850,350
7	Perkins	378,880
5	Port Costa	275,450
2	Roseville	102,350
2	Reed's Station	115,250
4,102	Sacramento	228,803,850
3,607	Stockton	200,075,730
1,286	Southern Pacific Co.	75,582,520
1	Suisun	48,750
34	State Prison at Folsom	1,743,000
2	Tudor	109,200
1	Turlock	39,250
1	Towles	55,350
5	Vallejo	272,350
2	Washington	107,000
1	Wheatland	60,300
50	Woodland	2,897,680
2	West Spur	95,300
31	Yuba City	1,731,400
11,132	Totals	620,445,950

EXPERT'S REPORT.

STATE PRISON AT FOLSOM, July 1, 1902.

I hereby certify that I have compared the biennial report of Brainard F. Smith, Clerk of Folsom Prison, for the fiscal years ending June 30, 1901, and June 30, 1902, with the several accounts as kept in the official books of the prison, and I find it to be a true and correct statement from the said books. I also certify that the Clerk has kept the accounts of Folsom Prison for said fiscal years in such a manner as to exhibit clearly all its financial transactions, and when any sum of money was paid to the Warden the same has been properly entered on the books by the Clerk.

I also certify that I find authorizations, duly and properly signed by a majority of the State Board of Prison Directors, for all disbursements included in said report for the fiscal years ending June 30, 1901, and June 30, 1902, and that the Warden has required vouchers for all moneys by him expended during said fiscal years, and safely kept the same on file in his office at the prison.

LESTER HERRICK,
Expert Accountant for the State Board
of Prison Directors.

GENERAL OVERSEER'S REPORT.

STATE PRISON AT FOLSOM, July 1, 1902.

HON. THOMAS WILKINSON, *Warden State Prison at Folsom:*

DEAR SIR: I have the honor to herewith submit my biennial report, in tabular form, for the fifty-second and fifty-third fiscal years, ending June 30, 1902.

C. W. KYLE,
General Overseer.

TABLE No. 1—Prison Account, July 1, 1881, to June 30, 1902.

Received and Discharged.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	Total
By commitment.....	96	85	131	217	230	225	150	152	241	265	197	237	210	263	326	338	274	297	173	188	153	219	4,697
Returned witnesses.....	2	1	9	4	6	2	4	2	5	6	7	7	8	8	7	12	12	4	29	2	2	21	160
Pardons revoked.....			1																				1
Parole revoked.....																		1					1
Escapes recaptured.....	2	5		3	1	3	3	3	3	2	6	3	2				2				2		40
Returned from asylum.....																							
Received U. S. prisoners.....					1	1	1	1	1	1	1	6	15		11	3	1	1	1	3		1	10
By order of court.....			2	2	2	1								2	1	1	1		2		3	5	23
By transfer from San Quentin.....	253	60		50	2	4	1	7	11	51	1	4	3	4		3	4				1		459
Returned with additional commitment.....												1	2										
Resentenced and returned.....																		1		1	1		3
Total received.....	353	151	143	278	242	235	159	166	262	328	211	259	241	277	346	358	295	304	206	194	162	247	5,415
Paroled.....																							
Per act.....	36	114	93	75	48	42	69	80	23	42	41	52	56	4	3	4		8	5	1	4	3	32
Pardoned.....	1	3	11	11	11	1	8	4	9	1	7	3		68	53	75	123	138	153	179	183	160	1,903
Escaped.....	6	4	4	6	4	2	2	2	3	3	5	2	2	1	3	2		2		1	1	1	78
Suicided.....	1			1	1	2	1																58
As witnesses.....	2		2	9	4	6	2	4	5	6	7	8	8	8		7	12	4	29	2	2	21	162
By commutation.....			1	8	3	22	16	13	1	1	2	1	6	1	2	4		1	1	1			83
For new trial.....			1	4	1	2	5	4	2	1	4	1	4	3	3	5	1	2	6		2	1	55
Died and killed.....	3	6	13	7	7	7	15	7	6	3	15	12	9	6	9	7	14	12	7	14	10	10	190
Per act and restored.....					32	71	80	88	83	93	97	133	176	140	138	153	133	108	62	26	16	9	1,638
By order of court.....	3	2	1	1	3					1	1			3		1	3		1	1	4	5	25
Conditionally pardoned.....	1										1			1									6
Pardoned by the President.....																							2
By writ of probable cause.....				1	2										1		2		3		1		3
By writ of habeas corpus.....			2	3	1			1		1													15
Killed by fellow convict.....																					1		4
Transferred to San Quentin.....					3	3	4	157		50			6		2	24			2				249
U. S. prisoners discharged.....															1	3	3	8	1	4	5	1	43
By certificate of probable cause.....								1		1													3
Killed while attempting to escape.....	1	1			1					1	1		4					1					10
For trial on additional charge.....																							3
For trial on new charge.....				2	1	2				1	6	4	3	1	3	1	2		2	4	2	4	52
To insane asylum.....			1	2				7	3	3								1			1	1	3
Credits restored.....																							
For resentence.....																							
Executed.....																4	3	4			1		13
Total discharged.....	56	139	144	118	147	152	198	350	134	212	184	226	282	237	230	293	283	293	279	228	244	219	4,648

TABLE No. 2.

Recapitulation of Received and Discharged Prisoners from July 1, 1900, to June 30, 1902.

Months.	Total	16 17 28 20 28 30 22 19 14 22 12 16 16 13 15 18 16 20 19 23 14 15 30																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
---------	-------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE No. 3.

Recapitulation of Population.

Months.	Population for Month.	Daily Average.	Summary.
1900—July	25,407	819.58+	
August	25,203	813.00	
September	23,844	794.80	
October	24,238	781.87+	
November	22,907	763.56+	
December	23,371	753.90+	
Gross first half fiscal year	144,970	4,726.71+	787.78+
1901—January	23,301	751.64+	
February	20,966	748.78+	
March	24,108	777.67+	
April	22,373	745.76+	
May	23,032	742.96	
June	22,224	740.80	
Gross second half fiscal year	136,004	4,507.61+	751.26+
1901—July	22,977	741.11+	
August	23,081	744.54+	
September	22,469	748.96+	
October	23,257	750.22+	
November	22,723	757.43	
December	23,663	763.32	
Gross first half fiscal year	138,170	4,505.58	750.93
1902—January	23,852	769.41+	
February	21,798	778.50	
March	24,211	781.00	
April	23,656	788.53+	
May	24,394	786.90+	
June	23,381	779.36+	
Gross second half fiscal year	141,292	4,683.70	780.61

TABLE No. 4.

Occupation of Prisoners when Received.

Occupation.	July 1 to June 30.	On Hand.	Occupation.	July 1 to June 30.	On Hand.
Baker	3	13	Mattressmaker	1	1
Barber	11	26	Merchant		2
Bartender		1	Miller		1
Basketmaker		1	Millhand	1	2
Bell boy		1	Miner	2	9
Blacksmith	2	15	Musician		2
Boilermaker	1	4	Nailmaker	1	1
Bookkeeper	3	8	Nurse	1	3
Bootblack	1	1	Orchardist		1
Boxmaker	2	2	Painter	3	15
Brakeman		3	Pastry cook		1
Butcher	1	6	Plasterer	1	1
Butler		1	Plumber	2	4
Cabinetmaker		3	Porter	1	5
Candymaker		2	Printer	1	3
Carpenter	3	16	Railroad man	1	3
Cigarettemaker		1	Rancher		3
Cigarmaker	1	2	Rigger		2
Clerk	4	12	Sailor	2	18
Cobwinder		1	Salesman	1	1
Confectioner		1	Saloonkeeper		1
Cook	16	48	Shoemaker	3	12
Cooper	2	3	Shoecutter		1
Copyist		1	Ship calker		1
Cowboy		1	Silver burnisher		1
Dairyman		1	Stage driver		1
Dentist		1	Stenographer	1	2
Druggist		2	Steward		1
Dishwasher		1	Stonecutter	1	3
Electrician	2	5	Surgeon	1	1
Engineer	2	11	Switchman		1
Farmer	7	20	Tailor	4	13
Fireman	8	13	Tanner		3
Florist	1	1	Teamster	7	20
Gardener	1	4	Tinner	2	4
Glassblower	1	1	Telegraph operator	1	1
Harnessmaker		3	Tool sharpener		1
Hostler	9	21	Turner		1
Horseshoer	2	6	Upholsterer	1	6
Ironmolder	1	5	Vaquero		2
Ironworker	2	2	Waiter	15	48
Jeweler		1	Weaver		3
Journalist	3	3	Watchmaker		1
Laborer	72	256	Wool knitter	1	1
Laundryman		13	No occupation		8
Lawyer	1	1			
Logger		1			
Machinist	2	7	Totals	219	767

Summary, in Percentage.

	July 1 to June 30.	On Hand.
Mechanics	35.16%	35.98%
Business	5.48%	4.96%
Professions	2.74%	1.30%
Agriculturists	4.11%	3.78%
Laborers	32.88%	33.38%
None		1.04%
Miscellaneous	19.63%	19.56%
Totals	100.00%	100.00%

TABLE No. 5.

Number of Prisoners from Each County.

County.	July 1 to June 30.	On Hand.	County.	July 1 to June 30.	On Hand.
Alameda.....	18	45	San Bernardino.....	17	25
Amador.....	4	7	San Diego.....		3
Butte.....		8	San Francisco.....	39	208
Calaveras.....		4	San Joaquin.....	7	19
Colusa.....		2	San Luis Obispo.....		4
Contra Costa.....	4	7	San Mateo.....	1	2
El Dorado.....	2	13	Santa Barbara.....		3
Fresno.....	23	51	Santa Clara.....	6	16
Glenn.....	1	1	Santa Cruz.....	1	9
Kern.....	4	12	Shasta.....		2
Kings.....	1	2	Sierra.....		3
Lake.....		1	Siskiyou.....		2
Lassen.....		1	Stanislaus.....	2	3
Los Angeles.....	19	72	Solano.....	4	19
Madera.....	1	8	Sonoma.....	7	17
Marin.....		3	Sutter.....	2	5
Mariposa.....	1	2	Tehama.....	3	8
Mendocino.....	3	7	Trinity.....		1
Merced.....	1	6	Tulare.....	8	12
Monterey.....	1	2	Tuolumne.....		4
Napa.....		1	Ventura.....	3	6
Nevada.....	2	7	Yolo.....		11
Orange.....	2	7	Yuba.....	6	10
Placer.....	4	12	Northern District.....		4
Sacramento.....	22	89			
San Benito.....		1	Totals.....	219	767

TABLE No. 6.

Nativity and Race of Prisoners.

Nativity.	July 1 to June 30.	On Hand.	Nativity.	July 1 to June 30.	On Hand.
<i>United States.</i>			<i>Foreign.</i>		
Alabama		2	Africa		1
Alaska		1	Australia	1	4
Arizona	1	2	Austria	2	5
Arkansas		1	Belgium		1
California	52	218	Canada	2	6
Colorado	1	3	China	1	23
Connecticut		3	Chile	2	4
Delaware			Denmark		3
Illinois	19	39	England	5	22
Indiana	7	14	Finland		2
Iowa	3	14	France	1	7
Kansas	2	6	Germany	7	27
Kentucky	5	19	Greece		2
Louisiana	1	3	Hawaiian Islands	1	1
Maine	1	4	Holland	1	1
Maryland	1	4	India		1
Massachusetts	6	16	Ireland	9	29
Michigan	8	16	Italy	1	6
Minnesota	1	5	Japan	1	5
Missouri	5	20	Malta		1
Montana		2	Mexico	8	26
Nebraska		2	Norway		3
Nevada	2	4	Portugal		3
New Hampshire	1	1	Russia	1	4
New Jersey		1	Scotland	1	5
New York	15	47	South America	2	8
North Carolina	1	2	Sweden		4
New Mexico		2	Switzerland		3
Ohio	7	19	Wales	1	1
Oregon	3	8	West Indies	1	4
Pennsylvania	11	23			
Rhode Island	1	2	Totals	219	767
South Carolina	2	3			
Tennessee	3	6	Native born	171	555
Texas	6	20	Foreign born	48	212
Utah		1			
Vermont	1	4	<i>Race.</i>		
Virginia	4	7	Caucasian	195	652
Washington		2	Mongolian	1	25
West Virginia		1	Negro	17	56
Wisconsin	1	8	Indian	6	34
			Totals	219	767

TABLE No. 7.

Classification of Crime.

Crime.	July 1 to June 30.	On Hand.	Crime.	July 1 to June 30	On Hand.
Abduction	1		Crime against nature	4	13
Arson		4	Crime against nature, and prior		1
Arson, first degree		2	Embezzlement	6	5
Assault deadly weapon	10	12	Felony	5	10
Assault deadly weapon, and prior		3	Forgery	13	19
Assault to murder	2	22	Forgery, and prior		3
Assault to murder, and prior		4	Furnishing liquor to an Indian	1	1
Assault to rape	1	19	Grand larceny	29	76
Assault to rape, and prior		1	Grand larceny, and prior		14
Assault to rob	4	11	Having in possession counterfeit coin		2
Assault to rob, and prior		1	Injuring public jail	1	4
Attempt to commit burg- lary, first degree	1	2	Incest		1
Attempt to commit burg- lary first degree, and prior		2	Jail breaking	1	1
Attempt to commit burg- lary, second degree	1	2	Maliciously burning a house	1	1
Attempt to commit crime against nature	1	4	Manslaughter	3	18
Attempt to commit grand larceny		1	Manslaughter, and prior		1
Attempted train-wrecking		1	Murder		4
Attempt to pass fictitious check	2	3	Murder, first degree	2	60
Breaking into United States postoffice		1	Murder, second degree	1	35
Bringing stolen property into State from abroad		1	Mayhem	1	1
Burglary	13	20	Obtaining money by false pretense		3
Burglary, and prior		1	Passing fictitious check	3	8
Burglary, first degree	21	105	Perjury	1	4
Burglary first degree, and prior	1	22	Petit larceny, and prior	6	8
Burglary, second degree	54	82	Rape	3	22
Burglary second degree, and prior	1	18	Rape, and prior	1	1
			Receiving stolen property	1	1
			Robbery	20	90
			Robbery, and prior	2	13
			Robbing U. S. mails		1
			Passing morphine into a jail	2	2
			Totals	219	767

TABLE No. 8.

Age of Prisoners, June 30, 1902.

Ages—Years.	July 1 to June 30.	On Hand.	Ages—Years.	July 1 to June 30.	On Hand.
Sixteen	1	2	Forty-nine	2	3
Seventeen	5	6	Fifty	1	7
Eighteen	6	9	Fifty-one	3	9
Nineteen	10	15	Fifty-two	1	5
Twenty	6	14	Fifty-three	3	16
Twenty-one	5	16	Fifty-four	3	7
Twenty-two	10	29	Fifty-five	—	5
Twenty-three	5	23	Fifty-six	1	6
Twenty-four	9	22	Fifty-seven	—	4
Twenty-five	12	27	Fifty-eight	1	5
Twenty-six	8	36	Fifty-nine	—	5
Twenty-seven	5	27	Sixty	—	3
Twenty-eight	9	31	Sixty-two	1	6
Twenty-nine	10	26	Sixty-four	1	2
Thirty	8	34	Sixty-six	1	3
Thirty-one	6	22	Sixty-nine	—	2
Thirty-two	7	26	Seventy	—	1
Thirty-three	9	30	Seventy-four	1	2
Thirty-four	7	29	Seventy-nine	—	2
Thirty-five	7	25	Eighty-one	—	1
Thirty-six	6	21			
Thirty-seven	8	25	Totals	219	767
Thirty-eight	12	27			
Thirty-nine	1	20	<i>Summary.</i>		
Forty	4	16	Twenty and under	28	46
Forty-one	5	23	Twenty to thirty	81	271
Forty-two	4	17	Thirty to forty	67	241
Forty-three	4	19	Forty to fifty	27	125
Forty-four	3	10	Fifty to sixty	12	65
Forty-five	3	11	Sixty to seventy	3	14
Forty-six	—	7	Seventy and over	1	5
Forty-seven	2	14			
Forty-eight	3	14	Totals	219	767

TABLE No. 9.

Terms of Imprisonment.

Years.	July 1 to June 30.	On Hand.	Years.	July 1 to June 30.	On Hand.
Six months	1	1	Fifteen	12	47
One	26	21	Sixteen	1	2
One and one quarter	—	2	Seventeen	—	2
One and one half	6	8	Eighteen	—	3
Two	30	47	Twenty	4	50
Two and one half	5	7	Twenty-two	—	2
Three	25	48	Twenty-four	—	1
Three and one half	5	6	Twenty-five	2	15
Four	12	29	Thirty	1	12
Four and one half	1	1	Thirty-two	—	1
Four and three quarters	1	1	Thirty-three	1	1
Five	28	98	Thirty-five	—	6
Five and seven months	1	1	Thirty-six	1	1
Six	10	22	Forty	—	7
Seven	9	35	Forty-two	—	1
Seven and one half	1	2	Forty-five	1	3
Eight	8	31	Fifty	—	2
Nine	1	4	Sixty	—	1
Ten	10	91	Ninety	—	1
Eleven	1	2	Life imprisonment	11	105
Twelve	—	21			
Thirteen	—	4	Totals	219	767
Fourteen	4	22			

TABLE No. 10.

Term.

Prisoners Serving.	July 1 to June 30.	On Hand.
First term	160	518
Second term	37	157
Third term	19	63
Fourth term	2	17
Fifth term		5
Sixth term		1
Seventh term		2
Eighth term		1
Ninth term	1	2
Tenth term		1
Twelfth term		
Totals	219	767

TABLE No. 11.

Educational.

System.	July 1 to June 30.	On Hand.
College	4	8
Private	7	53
Public and private	22	53
Self		15
Public	171	553
None	15	85
Totals	219	767

Degree.	July 1 to June 30	On Hand.
Read and write	204	679
Read and cannot write	2	5
Neither read nor write	13	83
Totals	219	767

TABLE No. 12.

Religion.

Belief.	July 1 to June 30.	On Hand.
Catholic	100	340
Protestant	97	327
Jew	2	5
Pagan	2	29
Atheist		2
Irreligious	18	64
Totals	219	767

TABLE No. 13—CLOTHING REPORT.
From July 1, 1900, to June 30, 1902.

Months.	Citizens.			Issues.							Manufactures.						
	Coats	Vests	Pants	Hats	Socks	Shoes	S. P. Pants	S. P. Shirts	Drawers	Undershirts	Hickory Shirts	Shoes	S. P. Pants	S. P. Shirts	Drawers	Undershirts	Hickory Shirts
1900—July	16	16	16	10	244	97	131	103	14	14	35	96	128	104	4	4	36
August	16	16	16	27	271	117	135	100	15	17	54	115	145	100	12	13	57
September	26	26	26		312	133	151	91	28	27	54	124	151	93	26	27	53
October	18	18	18	383	358	157	183	119	1,411	1,346	44	158	203	127	1,450	361	50
November	27	27	27	122	286	115	102	93	48	52	48	110	83	87	49	45	42
December	26	26	26	37	122	57	76	60	93	92	25	60	75	58	79	94	25
1901—January	20	20	20	83	260	115	130	117	66	69	37	111	130	120	68	71	37
February	17	17	17	63	222	111	121	96	39	39	37	113	126	95	38	38	38
March	11	11	11	45	282	117	132	106	38	38	34	116	132	104	34	33	34
April	17	17	17	272	318	140	173	133	33	33	49	141	168	133	24	26	45
May	10	10	10	30	216	88	100	78	8	8	38	95	103	79	8	8	39
June	12	12	12	29	280	119	129	100	12	12	64	110	125	103	11	12	57
July	16	16	16	49	235	105	143	110	18	16	49	111	153	110	16	16	48
August	13	13	13	55	260	109	160	114	12	12	44	111	138	107	13	13	54
September	10	10	10	37	263	111	143	116	9	9	35	128	166	124	9	17	32
October	13	13	13	24	360	28	78	72	1,288	1,287	27	50	71	64	1,307	1,293	29
November	16	16	16	41	251	66	159	136	80	80	43	58	160	147	53	85	47
December	14	14	14	31	260	41	167	154	78	78	32	42	188	141	72	76	27
1902—January	15	15	15	28	228	37	129	122	75	75	25	22	111	133	89	67	25
February	10	10	10	18	226	79	117	95	46	45	23	75	129	97	35	47	22
March	19	19	19	20	267	127	155	129	73	67	33	117	166	134	68	70	29
April	11	11	11	26	203	99	136	100	64	61	29	96	117	78	63	57	27
May	10	10	10	139	321	153	156	126	63	56	103	162	169	157	70	57	125
June	24	24	24	219	347	121	158	134	34	29	129	114	118	107	23	23	107
Totals	387	387	387	1,788	6,392	2,442	3,264	2,604	3,645	3,562	1,091	2,435	3,245	2,602	3,621	3,553	1,085

PHYSICIAN'S REPORT.

STATE PRISON AT FOLSOM, June 30, 1902.

HON. THOMAS WILKINSON, *Warden*:

DEAR SIR: I herewith transmit report of prisoners treated by the Resident Physician of this prison for the two fiscal years ending June 30, 1902, showing office visits and cases treated in hospital, number of those excused from daily labor on account of illness, and the mortality list.

Respectfully,

BENJ. A. PLANT,
Resident Physician.

MEDICAL DEPARTMENT—CALIFORNIA STATE PRISON AT FOLSOM.

Table Showing Number of Cases Treated during the Fiscal Year ending June 30, 1901, Including Office Calls and Cases Treated in Hospital; Number of Those Excused from Daily Labor on Account of Illness; and Number of Deaths.

Diseases.	1900.						1901.						Total
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	
Asthma.....	4	5	4	6	3	3	3	3	5	3	3	3	45
Biliousness.....	52	55	35	60	46	42	38	35	33	25	28	29	478
Bronchitis.....	180	165	128	162	115	142	197	74	81	65	75	63	1,447
Catarrh, nasal.....	21	11	11	8	6	9	23	19	15	17	17	15	172
" genito-urinary.....	9	3	3	5	4	4	8	5	3	6	5	3	58
Constipation.....	56	56	43	44	33	25	14	7	30	17	17	19	361
Conjunctivitis.....	28	22	18	17	14	17	20	9	13	19	23	17	217
Colic.....	46	33	10	37	25	21	16	12	15	8	9	5	237
Cephalalgia.....	37	28	24	39	23	37	20	19	23	18	17	16	301
Diarrhœa.....	36	27	23	28	20	14	19	6	12	10	16	12	223
Dysuria.....	39	38	33	40	28	31	42	30	32	17	24	16	370
Gleet.....	7	3	2	4	3	3	4	3	3	2	-----	-----	34
Gonorrhœa.....	6	3	3	2	2	2	4	3	4	3	3	-----	35
Insomnia.....	2	-----	-----	4	3	2	-----	1	-----	-----	-----	-----	12
Indigestion.....	58	41	36	52	32	42	42	39	37	26	30	35	470
Malaria.....	65	96	111	123	73	155	84	70	83	77	83	86	1,106
Neuralgia.....	11	15	14	19	10	14	14	6	18	14	61	15	211
Otalgia.....	6	7	6	14	7	7	13	7	8	6	10	11	102
Odontalgia.....	40	35	33	34	26	22	20	24	22	25	24	24	329
Pneumonia.....	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	2
Rheumatism.....	23	20	23	32	34	57	33	34	45	27	26	23	377
Syphilis.....	11	3	4	6	3	3	2	2	4	-----	2	1	41
Spermatorrhœa.....	10	7	6	8	4	3	1	2	1	-----	3	-----	45
Skin diseases.....	5	4	4	3	3	1	-----	4	5	4	5	1	39
Tuberculosis.....	4	6	2	2	1	2	-----	-----	-----	2	-----	-----	19
Unclassified.....	30	17	11	33	24	19	8	12	20	18	18	16	226
Totals.....	788	700	587	782	542	677	625	426	512	409	499	410	6,957
<i>Surgical.</i>													
Amputations.....	-----	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	1	3
Boils.....	6	4	-----	-----	5	6	2	8	2	4	-----	-----	37
Dislocations.....	-----	1	-----	1	-----	-----	-----	-----	2	1	1	-----	6
Fractures.....	-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	2
Removed foreign bodies.....	-----	2	2	-----	-----	-----	-----	-----	4	2	1	4	15
Hemorrhoids.....	2	2	-----	-----	-----	-----	-----	2	1	-----	-----	-----	8
Hernia.....	1	1	-----	1	-----	-----	-----	-----	1	-----	-----	-----	5
Sprains.....	2	3	1	15	1	1	3	-----	3	-----	4	1	34
Teeth extracted.....	29	15	19	18	12	9	8	10	9	15	9	13	166
Wounds, contused.....	8	6	5	5	4	2	6	4	5	4	4	7	60
Wounds, incised.....	4	5	2	3	-----	2	4	3	4	11	3	2	43
Appendicitis.....	1	1	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	4
Unclassified.....	1	-----	-----	2	-----	-----	1	-----	-----	1	-----	3	8
Totals.....	55	41	32	47	22	20	25	27	31	38	22	31	391
Excused from daily labor.....	108	53	24	86	30	61	69	46	35	38	55	29	634
Admitted to hospital.....	8	7	3	7	2	2	8	1	6	7	4	5	60
Died.....	1	1	1	1	2	1	1	1	1	3	1	3	17

Medical cases treated..... 6,957

Surgical cases treated..... 391

Total..... 7,348

MEDICAL DEPARTMENT—CALIFORNIA STATE PRISON AT FOLSOM.

Table Showing Number of Cases Treated during the Fiscal Year ending June 30, 1902, Including Office Calls and Cases Treated in Hospital; Number of Those Excused from Daily Labor on Account of Illness; and Number of Deaths.

Diseases.	1901.						1902.						Total
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	
Asthma	5	2	2	2	2	2	3	5	4	4	2	3	36
Biliousness	27	25	20	32	28	45	52	54	51	43	28	50	455
Bronchitis	76	60	55	70	64	85	110	175	201	249	125	57	1,327
Catarrh, nasal	15	11	10	17	18	21	19	36	13	16	8	6	190
“ genito-urinary	6	3	3	12	6	8	9	11	4	5	4	3	74
Constipation	37	19	15	23	22	24	24	47	40	20	16	37	324
Conjunctivitis	17	13	12	16	13	11	12	20	12	17	27	25	195
Colic	9	8	9	16	14	14	12	26	50	32	8	57	255
Cephalalgia	18	10	8	14	10	14	16	43	23	26	17	15	214
Diarrhœa	27	22	16	20	17	18	16	16	39	27	16	50	284
Dysuria	13	12	10	20	18	22	22	37	48	14	7	8	231
Gleet	2	1	6	1	1	1	2	1	2	1			18
Gonorrhœa	2	1	2	2	1	2		3	1	6	4	4	28
Indigestion	51	45	37	54	37	40	44	77	72	26	15	20	518
Malaria	60	55	58	77	61	59	74	108	142	134	74	55	957
Neuralgia	13	12	11	17	12	12	11	22	14	17	9	25	175
Otalgia	5	4	3	9	17	4	3	7	43	10	20	12	137
Odontalgia	22	21	20	32	19	17	26	30	27	27	23	12	276
Phthisis Pul.									1				1
Pneumonia									2				2
Rheumatism	20	14	12	35	21	24	25	35	20	22	15	15	258
Skin diseases	6	4	3	8	2	2		2					27
Syphilis			1	1									2
Unclassified	16	13	14	20	16	16	17	24	30	19	24	18	227
Totals	447	355	327	498	399	441	497	779	839	714	443	472	6,211
<i>Surgical.</i>													
Amputations				2								1	3
Abscesses and boils	1	1		1			1		1	1			6
Dislocations										1			1
Fractures				1		1	1	1					4
Removed foreign bodies					1								1
Hernia				1									1
Sprains							3						7
Teeth extracted	14	14	12	14	10	6	14	9	11	14	14	4	138
Wounds, contused	6	5	4	3	5	1	5	6	4	11	15	8	73
Wounds, incised	2		1	1	1	2	1	1	1	2		3	15
Vaccinations										14	9	10	33
Unclassified			1				1	1	1	1	1		6
Totals	23	20	18	23	17	10	26	18	18	44	39	32	288
Excused from daily labor	35	18	11	17	9	20	43	70	116	146	65	71	621
Admitted to hospital	1	4	2	8	3	4	4	3	5	4	4	4	46
Died				1		2	1		1	1	2	3	11

Medical cases treated..... 6,211

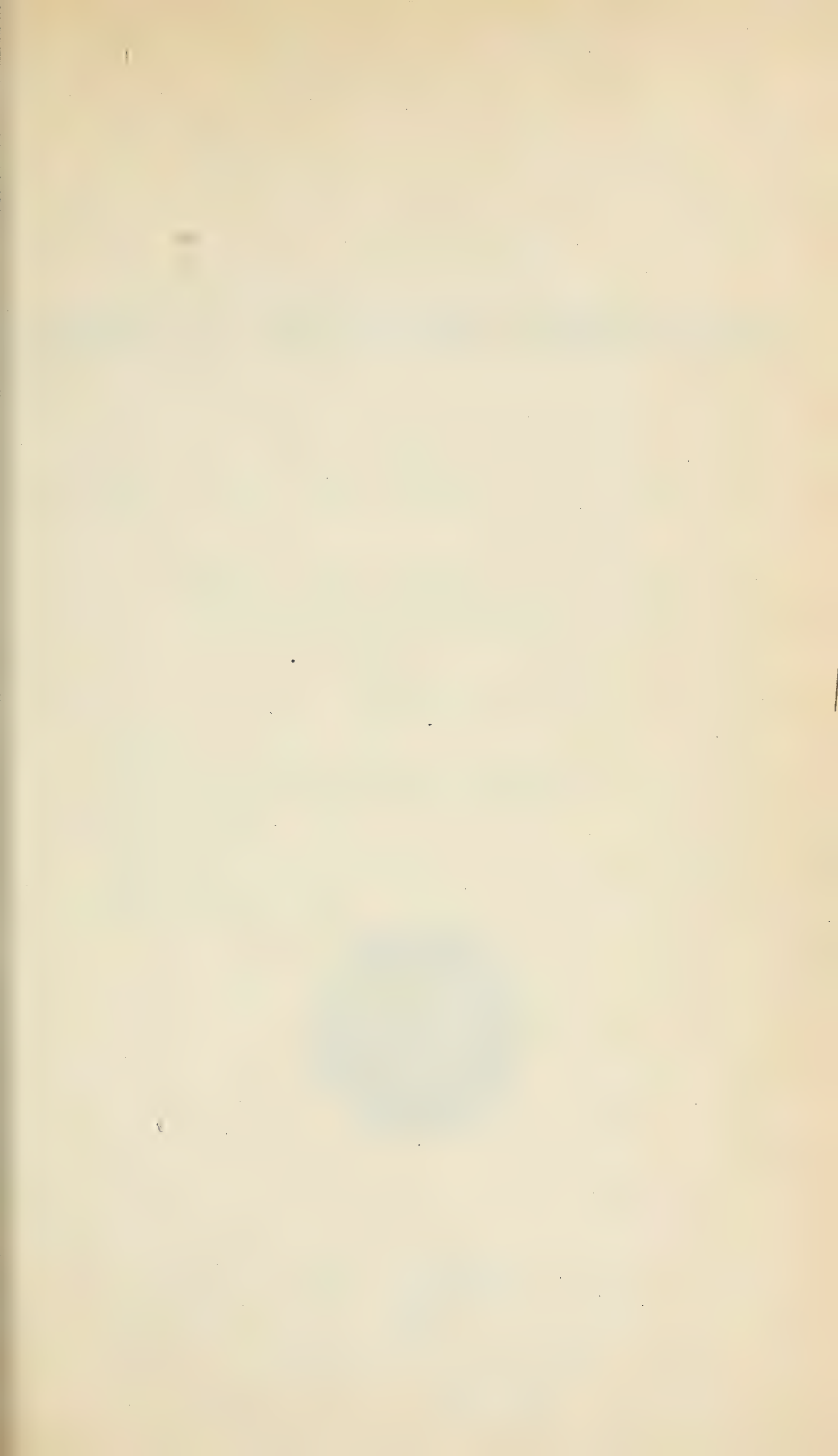
Surgical cases treated..... 288

Total 6,499

MEDICAL DEPARTMENT—CALIFORNIA STATE PRISON AT FOLSOM.

Table Showing Number of Deaths, Giving Name and Age of Prisoner, Time and Cause of Death.

Date.	Name.	No.	Age.	Cause.
1900—July 10	Browse, J. A.	2146	46	Laryngeal tuberculosis.
Aug. 25	Butts, William	4811	31	Pulmonary tuberculosis.
Sept. 12	O'Rourke, Henry	4313	36	Pulmonary tuberculosis.
Oct. 21	Harper, Henry	4342	34	Pulmonary tuberculosis.
Nov. 8	Ah Sam	4500	64	Pulmonary tuberculosis.
Nov. 19	Puttman, George	4607	25	Executed.
Dec. 30	Coffee, John W.	3592	51	Pulmonary tuberculosis.
1901—Jan. 16	Petrie, Robert	1873	70	Pleurisy and senility.
Feb. 5	Zumwaldt, Isiah	4381	66	Inanition.
Mar. 8	Dear, James	4869	30	Concussion of brain.
April 8	Kiel, John C.	4764	38	Septicæmia.
April 15	Turban, B.	4806	22	Accident.
April 22	Julian, C.	4446	22	Tubercular adenitis.
May 19	Miller, Henry	4838	23	Fracture of skull.
June 4	Fagan, Joseph	4665	56	Cancer of stomach.
June 17	Beck, Andrew	3503	44	Suicide.
June 25	Edwards, George	4845	18	Appendicitis.
Oct. 17	Agular, A.	2942	36	General syphilis.
Dec. 9	Gassaway, O. S.	4506	66	Chronic rheumatism.
Dec. 18	Keating, Daniel	4338	26	Tetanus.
1902—Jan. 18	Molino, Ramon	4091	57	Surgical shock.
Mar. 31	Jones, Frank	4854	26	Phthisis pulmonalis.
Apr. 24	Ludwig, William	4020	31	Drowned.
May 19	McKewen, Thomas	490	88	Senility.
May 31	Reade, Peter	4353	31	Drowned.
June 16	Spellman, A. B.	4728	20	Cerebral concussion.
June 20	Cahill, Robert	3597	33	Tetanus.
June 28	Cooney, John	1679	50	Heart disease.



BIENNIAL REPORT

OF THE

Board of State Harbor Commissioners

FOR THE

BAY OF SAN DIEGO.

OCTOBER 18, 1902.



SACRAMENTO:

A. J. JOHNSTON, : : : SUPERINTENDENT STATE PRINTING.
1902.

BOARD OF STATE HARBOR COMMISSIONERS

FOR THE

BAY OF SAN DIEGO.

G. B. GROW	-	-	-	-	-	San Diego.
R. B. BENTON	-	-	-	-	-	San Diego.
CHARLES P. DOUGLASS		-	-	-		San Diego.

REPORT
OF THE
BOARD OF STATE HARBOR COMMISSIONERS FOR
THE BAY OF SAN DIEGO.

SAN DIEGO, CALIFORNIA, October 18, 1902.

To HON. HENRY T. GAGE, *Governor of the State of California:*

DEAR SIR: In accordance with the provisions of Section 2592 of the Political Code, the Board of State Harbor Commissioners for the Bay of San Diego respectfully submit the following report for the period of two years, commencing October 1, 1900, to September 30, 1902:

Receipts None.

Disbursements None.

Yours truly,

G. B. GROW,
R. B. BENTON,
CHAS. P. DOUGLASS,
Commissioners.

BIENNIAL REPORT

OF THE

Board of State Harbor Commissioners

FOR THE

TWO FISCAL YEARS COMMENCING JULY 1, 1900, AND ENDING
JUNE 30, 1902.



SACRAMENTO:

W. W. SHANNON, : : : : SUPERINTENDENT STATE PRINTING.
1903.

BOARD OF STATE HARBOR COMMISSIONERS.

PARIS KILBURN, <i>President</i> ,	-	-	-	-	Commissioner.
JOHN C. KIRKPATRICK,	-	-	-	-	Commissioner.
J. D. MACKENZIE,	-	-	-	-	Commissioner.

WM. D. ENGLISH,	-	-	-	-	-	-	Secretary.
JAMES BYRNE, JR.,	-	-	-	-	-	-	Assistant Secretary.
LOTT D. NORTON,	-	-	-	-	-	-	Chief Engineer.
JAMES H. BUDD,	-	-	-	-	-	-	Attorney.

OFFICE:

Union Depot and Ferry House, San Francisco.

BIENNIAL REPORT

OF THE

BOARD OF STATE HARBOR COMMISSIONERS.

SAN FRANCISCO, CAL., September 1, 1902.

HON. HENRY T. GAGE, *Governor of California, Sacramento, Cal.:*

SIR: As required by law, the Board of State Harbor Commissioners for the harbor and port of San Francisco respectfully submits the following report for the two (2) fiscal years commencing July 1, 1900, and ending June 30, 1902, embracing in detail all financial transactions of this department, and work done during the period named, together with such recommendations as the observation and experience of the individual members comprising the Board may deem expedient for the betterment of the commercial facilities of this port.

Statements of receipts and disbursements and other subjects are classified under exhibits, as follows:

Exhibit A—Summary of receipts and disbursements during the last two (2) fiscal years; showing also amounts remitted to State Treasurer.

Exhibit B—Statement showing the condition of the San Francisco Harbor Improvement Fund, June 30, 1902.

Exhibit C—Statement showing the condition of the San Francisco Depot Sinking Fund, June 30, 1902.

Exhibit D—Comparative statement of receipts and disbursements from the organization of the Commission on November 4, 1863, up to June 30, 1902.

Exhibit E—Statement of receipts and disbursements for the two (2) fiscal years ending June 30, 1902; showing whence the revenue was derived and the purposes for which expended.

Exhibit F—Itemized statement of Harbor Improvement Fund for the two (2) fiscal years ending June 30, 1902; showing monthly remittances to the State Treasurer and payments made by drafts on State Controller.

Exhibit G—Balance sheet from the organization of the Commission, November 4, 1863, to June 30, 1902.

Exhibit H—Construction Account No. 1, showing contracts under way at the date of the last Biennial Report, and since completed.

Exhibit I—Construction Account No. 2, showing work contracted for within the last two (2) fiscal years, and completed.

Exhibit J—Construction Account No. 3, showing work contracted for within the last two fiscal years, but not yet completed.

Exhibit K—Construction Account No. 4, seawall constructed from 1878 to 1893, showing cost of same.

Exhibit L—Construction Account No. 5, Belt Railroad, its cost and maintenance, and revenue derived therefrom.

Exhibit M—Statement showing deferred payment drafts.

Exhibit N—Statement of cost of dredging by years, since June 30, 1875.

During the past two years the remarkable activity in shipping to and from this port foreshadows the possibilities of our commercial trade in the future. Never in the history of San Francisco has the volume of trade by water been so large as during the period which this report embraces.

Our traffic with Europe, Asia, South America, the Hawaiian and Philippine Islands, as well as with the principal seaports of the Atlantic coast, reached such a stage of activity that it was a matter of much concern whether we could afford sufficient port facilities to accommodate the largely increased traffic.

Every effort was made by this Board to provide all necessary facilities, and we are pleased to say, and the commercial community will concur in the statement, that every convenience and accommodation were afforded.

To provide the necessary accommodations for this remarkably increased trade, extensive improvements had to be made, a full account of which will be found under the head of Exhibits "H," "I," and "J."

NEW WHARVES.

Under date of November 28, 1900, contracts were awarded for the construction of four (4) new piers, to be known as:

Pier 19—Union Street Wharf No. 2;

Pier 21—Filbert Street Wharf;

Pier 23—Greenwich Street Wharf No. 1;

Pier 25—Greenwich Street Wharf No. 2.

These piers are located on the north end of the water front, between Lombard and Union streets. The length of each is 600 feet, with a width of 100 feet; they are built on concrete cylinder piers, measuring

four (4) feet in diameter, and in all other respects are of the most modern style of construction. They are as permanent as modern wharf engineering skill can make them.

Their location is admirably adapted for sea-going vessels, inasmuch as a number of warehouses are in close proximity, which is a great advantage in the handling of cargo in any port. A modern shed has been constructed on Pier 19, and the Board contemplates the erection of similar sheds over each of the other three piers.

NEW CAR FERRY SLIPS.

On November 8, 1900, the Board entered into a contract for the construction of two (2) new car ferry slips, just north of Lombard Street Pier. These ferry slips are used by the transports of the different railroad companies in the movement of cars to and from the Belt Railroad.

On the inauguration, in 1892, of the Belt Railroad, two (2) slips were built just south of Lombard Street Wharf, and aside from the fact that these two (2) old slips had become dilapidated by long service and had to be rebuilt, a different location for the new slips was made necessary in order that sufficient room could be secured for the extension of the four (4) new piers already referred to. At the head of each of these slips have been erected immense drop aprons, which are lowered and elevated by hydraulic power. Freight cars are moved over these aprons to and from the different transport steamers, and in view of the great weight passing over the aprons, the utmost care has been exercised as to their sustaining strength and mechanism.

LENGTHENING OF WHARVES.

Since the last biennial report of this Board, on the application made by your Excellency to the United States War Department, Washington, D. C., a new pierhead line has been established by the Federal Government, which enables this Board to build wharves now out to a distance of eight hundred (800) feet instead of six hundred (600) feet as formerly. This authority to extend our wharves is a very important concession, as it makes it possible to provide additional wharf facilities in the most central and convenient locations on the city front.

The constantly increasing number of river steamers plying between San Francisco and points on the Sacramento and San Joaquin rivers and other tributaries of the Bay of San Francisco, made it necessary for the board to provide additional accommodations for this class of shipping. As river steamers transport to tide water fruit and perishable products, requiring quick delivery at point of destination, the additional accommodation, required by the increased traffic to and from points on the inland waters of the State for the convenience and economy of farmer and merchant, had to be provided at points adjacent to the

wholesale business center of the city. Therefore, in view of the extension of the pierhead line, the Board awarded contracts for the lengthening of Washington Street Wharf and Mission Street Wharf No. 1, by two hundred (200) feet each. This work has been completed and the added wharf room on each dock has been covered over by modern sheds connected with those covering the wharves before being lengthened.

The lengthening of these two central wharves has provided eight hundred (800) lineal feet of berth room for river steamers, and has added thirty-two thousand (32,000) square feet of wharf space for handling their freight.

REBUILDING OF STEUART STREET WHARF.

Carrying out the policy of providing additional wharf room, in the most central portions of the city front, to meet the requirements of the commercial traffic by ocean-going vessels, a contract was entered into September 20, 1900, for the lengthening of Steuart Street Wharf (Pier No. 20) by three hundred (300) feet, and virtually rebuilding the old portion of the wharf. This work was completed in June, 1901, at a cost of \$46,700.96.

IMPROVEMENT AT HARRISON STREET WHARF.

The demand for more covered wharves has been such that the Commission, on August 29, 1900, contracted for the construction of a shed over Harrison Street Wharf (Pier No. 16), which, together with new piling required, was completed at a cost of \$9,433.19.

BERRY STREET WHARF.

This wharf has long been used for vessels in discharging immense cargoes of lumber. The wharf has been thoroughly overhauled and repaired, at a cost of \$9,625.75.

BROADWAY WHARF No. 1 (PIER No. 9).

On January 15, 1902, a contract was awarded for the construction of a new wharf to replace old Broadway Wharf No. 1 (Pier No. 9). This pier was one of the oldest in the harbor. The new dock will be eight hundred and twenty (820) feet in length and one hundred and twenty-four (124) feet in width. It will be built on cylindrical piers of concrete three feet in diameter, and in all other respects its construction will be along the lines adopted in other work of improvement carried out by the Board. The cost of this work, not including wharf shed, will be \$84,770.

BELT RAILROAD.

The great increase in the business of the Belt Railroad, as shown in Exhibit "L" of this report, proves that the north end of our water front is becoming more and more a business center.

Coming in and passing out on cars moved over the road during the last two fiscal years, the aggregate freight tonnage was 816,020 tons. For the two fiscal years ending June 30, 1900, the aggregate freight tonnage was 631,580 tons. The excess in favor of the two fiscal years embracing the period covered by this report is, therefore, 184,440 tons. This increased volume is convincing proof that the advantages of our Belt Railroad are appreciated by our mercantile community. The increased business of the Southern Pacific Company and the Santa Fé System on the Belt Railroad, both of which companies have terminals on the south end, show that the short cartage haul from the Belt Railroad to the business center must be a source of economy for our merchants. Another advantage is the substantial and permanent roadways on the north end, made possible by the construction of the seawall, which makes the haul much easier than on the south end, where the seawall does not extend.

Recognizing the importance of the Belt Railroad system as an important commercial factor, the Board has during the past two years made many improvements in that department. Additional yard room has been set aside wherever possible, and a number of warehouses and manufacturing factories are now connected with the main line by spurs, so that cars of freight shipped in and out can be handled with economy and dispatch. The increased business of the road made it incumbent on the Board to purchase an additional locomotive, at a cost of \$9,000.

SLIPS FOR FLOATING DRY DOCKS.

A contract was let June 4, 1902, for the construction of slips for floating dry docks in Central Basin, at a cost of \$79,206. The work is being rapidly pushed to completion.

DREDGING.

To maintain sufficient water for heavy-draught vessels in the approaches to our wharves, and in the channels between and alongside thereto, required the constant operation of the two dredgers belonging to the State. During the past two years, to keep pace with dredging requirements, the Board was obliged to have considerable work done by contract. A new modern and up-to-date dredger has already been contracted for and will be in operation by the first of the year, and will greatly assist us in solving the dredging problem. During the last two years the two State dredgers removed 1,605,200 cubic yards, at a cost of $6\frac{5.8}{100}$ cents per cubic yard.

CHINA BASIN LEASE.

The lease to the San Francisco & San Joaquin Valley Railway Company, made by the Board in 1895, having been rescinded, a new lease with said company was executed on November 21, 1900, and approved by the State Legislature, March 23, 1901.

The premises leased consist of about thirty-five acres in China Basin, and the following excerpt from the lease itself is explanatory of its purport:

Whereas, in the opinion of the party of the first part, the interests of commerce permit and require that any or all parts of the premises herein described should be utilized and employed for such terminal facilities, which are hereby defined to be the filling in or piling of the said premises or any part thereof up to the inner line of the seawall and thoroughfare as established by law, and the building of a retaining wall along the water front under the direction of the party of the first part, and the placing upon said demised premises of tracks, depots, warehouses, freight sheds, and all other structures necessary or convenient for the proper operating of said railway and the receiving and discharging of both freight and passengers, including the usual adjuncts of railway waiting and freight stations.

The lease runs for a period of fifty (50) years, at a yearly rental of \$1,000. On the expiration of the lease, the property with all improvements reverts to the State. The following letter shows the extent of the work already done in China Basin :

ENGINEER'S OFFICE, CORNER SPEAR AND HARRISON STREETS,
SAN FRANCISCO, CAL., August 7, 1902.

MR. LOTT D. NORTON, *Chief Engineer, Board of State Harbor Commissioners, San Francisco, Cal.:*

SIR: The work of reclaiming China Basin was commenced in May, 1901.

Seawall.—The first steps that were taken were the hiring of dredgers to dredge out a channel or trench in which the seawall was to be placed. This channel or trench was dredged out along the center of the 200-foot thoroughfare from El Dorado Street on the south to Channel Street on the north. The cross-section of the trench, as nearly as can be determined, is shown in the inclosed blue print. The channel or trench, of course, varies in depth according to locality, but taking a general average along the whole line, the dimensions are as follows: Depth below city base, 40 to 50 feet; width on base, 60 feet, with slopes of 2 to 1 to seaward and 4 to 1 on the land side. The mud that was taken from this trench was deposited on the land side, and up to the present date, the approximate amount of mud dredged is about 570,000 cubic yards. As fast as this trench was dredged, rock was placed in the same for core of the seawall. This core is shown on the blue print attached, together with the probable settlement below the part dredged. Up to date there has been placed about 330,000 tons of rock, or an average of 200 cubic yards of rock per lineal foot of seawall. The rock that has been used is an igneous or basalt rock, and has been brought from the quarries at El Campo and San Bruno. The size of the rock was from 4 inches cubed up to 2 feet cubed. It is proposed to place on the outside of this wall heavy rip-rap to protect it from wave action, using rock not less than 2 feet cubed. The slopes of the finished seawall will be, as near as practicable, $1\frac{1}{2}$ to 1 to seaward and 2 to 1 on the landward side.

Filling China Basin.—The filling of China Basin proper, that is, the area leased by the State, has not yet really commenced, as most all of the material that has been dumped so far has been along the Fourth Street line and to the south of the same as far as El Dorado Street, covering the property purchased by this company. At present trestles are being run to the north of Fourth Street, in China Basin proper, and during

the past month a small amount of material has been dumped from them. Up to date, there has been dumped about 350,000 cubic yards of filling material. This filling material has been taken from the Potrero hills.

The ferry slip at the foot of Fourth Street was completed and accepted by the Board of State Harbor Commissioners on July 1, 1902. Since that time, the San Francisco & San Joaquin Valley Railway Company has received some few cars of freight at that point. Any further information you may need, I will be most happy to furnish you.

(Signed :) W. D. NICHOLSON,

Assistant Engineer.

OTHER IMPROVEMENTS.

The work done, as outlined in the foregoing, while in itself large in extent and costly in expenditure, does not constitute all the improvements made. Special reference is made thereto for the reason that the work referred to constitutes the principal operations of the Board during the past two fiscal years. When it is taken into consideration that our wharf structures embrace over seven miles in lineal measurement, the older portions of which are built on unpreserved and unprotected piling, the life of which is, at best, short, an idea of the magnitude of the necessary repairs on this vast stretch of territory is suggested, especially when these repairs are made as far as possible in a more permanent manner. Aside from the shore repairs that constantly demand attention, the long stretch of wooden bulkheads, wharf roadways, and piling, together with the approaches to different wharves, is a matter of the greatest importance.

EXTENSION OF SEAWALL.

With the above-mentioned new piers constructed and those still under construction, together with improvements made, the accommodations would be ample for some time to come were it not that most of the present old, unpreserved structures have to be entirely removed and rebuilt in the near future. Under these conditions, attention should now be given to the extension of the seawall south from its present terminus near Mission Street. The building of a seawall as far south as Channel Street would be of incalculable benefit to commerce, inasmuch as it would do away with the long stretch of wooden bulkheads and roadways, over which the immense traffic has to pass, on that portion of our water front where the seawall does not extend. The expense entailed in keeping these wooden bulkheads and roadways in good condition and repair is very large. Were the seawall extended, this great expense for repairs would cease. Again, the extension of the seawall as far as Channel Street would bring the State into the possession of twenty-four (24) fifty-vara lots, and in addition thereto, re-alignment of the water front on the south end would make room for seven additional piers.

In view of the activity of our wide-awake competitors of the North, it behooves us to be alive to the situation and to the consequences that may follow our failure to provide, in advance, accommodations of the most

modern and improved character. The seawall must be extended sooner or later. Until it is, no permanent improvements of any consequence can be made on the south end. Therefore, we earnestly trust that the Legislature, at its next session, commencing in January, 1903, will take up this subject and authorize the issuance of two million (\$2,000,000) dollars in bonds, so as to proceed with this necessary work.

There is now on our water front 9,203 feet of seawall, commencing at the foot of Taylor Street, running thence in a southeasterly and southerly direction to a point 208 feet south of the ferry depot.

From its present terminus to Channel Street the distance is about 6,000 lineal feet. The approximate cost of building the seawall would be about \$150 per lineal foot, or \$900,000 in the aggregate for the seawall proper, and to this amount must be added the additional cost of renewing wharves now projecting inside of the seawall line. In the matter of a bond issue, we would recommend that a bond commission be created, to consist of the Governor, State Treasurer, and Attorney-General, and said commission be authorized to issue and sell bonds to an amount not exceeding \$2,000,000, and in such installments as the Board of State Harbor Commissioners may deem necessary.

When the Board of State Harbor Commissioners determine to build a section of the seawall, the bond commission could sell bonds in a sufficient amount to defray the expenses thereof. In other words, instead of selling all the bonds at one time, they should be sold only to obtain money to pay for work actually contracted for, and thus avoid paying interest on money not required. The bonds should run for thirty years, and the principal and interest should be paid from the revenue of the water front, the same as the ferry depot bonds.

The following excerpt from the report of the Chief Engineer of the Board in 1898 is explanatory of seawall construction:

"The seawall and thoroughfare, of which there has been constructed some 9,600 feet, is as follows: It consists of, first, a wall of loose, broken stone 100 feet wide at a point 20 feet below low tide, sloping upward from that point on the natural slope assumed under water until it reaches city base on the inner side and to low-water mark on the outer or water side, this fixed point of 20 feet below low water being where the outer line of the water front intersects the slope of the embankment. From low-water mark on the outside, a layer of large rock 4 feet in thickness is hand-laid on a slope of 4 to 1 shorewards. This slope continues inshore for 36 feet, ending at a point 54 feet from the water-front line. At this point a dry wall is built of large broken rock about 8 feet at the bottom and 5 feet in height, battering slightly in-board. Before filling in this above-described embankment of loose rock, a trench is dredged along the line of same in the soft mud to a depth varying from 20 to 35 feet at low water (according to the density and character

of mud). It has a width of from 20 to 30 feet on the bottom to receive the toe of slope. The rock used on the outer slope of the above-described loose rock embankment, below the line of low water for a thickness of 10 feet, are specified to be in weight of not less than 400 pounds each. The wall thus described is protected on its outer side by a wharf 60 feet in width, built in the usual manner, with piles 10 feet from centers each way; the outer line of this wharf is on the water-front line. The portion of the street and thoroughfare behind the embankment above described (said street being 200 feet in width) is filled to the official grade or city base with sand and broken rock, or dry earth, or any suitable material except mud. The surface, when sufficiently settled, is either macadamized or paved."

The report of James H. Budd, Attorney of the Board, will be found under the head of Exhibit "O."

Respectfully submitted.

PARIS KILBURN,
President.
JOHN C. KIRKPATRICK,
Commissioner.
J. D. MACKENZIE,
Commissioner.

EXHIBIT A. SUMMARY OF RECEIPTS AND DISBURSEMENTS.

Receipts.	1900-1901.	1901-1902.	Total.	Disbursements.	1900-1901.	1901-1902.	Total.
From dockage.....	\$195,977 70	\$192,924 40	\$388,902 10	Salaries of Commissioners, Secretaries, Engineers, Draftsmen, Attorney, Wharfingers, Collectors, Watchmen, and Clerks in Secretary's office.....	\$75,274 10	\$83,103 75	\$158,377 85
From tolls.....	252,441 57	244,533 96	496,975 53	Construction, including building of new wharves, slips, sheds, sewers, and roadways; maintenance and repairs of water-front streets, old wharves, buildings, and roadway.....	400,741 42	460,548 25	921,289 67
From wharfage.....	2,251 35	3,775 73	6,027 08	Wharf cleaning.....	21,203 64	24,300 26	45,503 90
From rents of wharves, seawall lots, special dock privileges—including re-servicing of berths, ferry slips, Belt Railroad freight sheds, and offices.....	282,761 25	328,934 25	611,695 50	Dredging.....	46,166 24	59,494 87	105,661 11
From sale of material (urgent repairs).....	3,400 59	3,794 95	7,195 54	General expenses, including the following:.....			
From Fishermen's Wharf (exclusive of rents).....	3,526 25	3,753 75	7,280 00	Light and power.....			
From miscellaneous, damage to property, etc.....	263 40	2,531 81	2,795 21	Legal expenses.....			
From Belt Railroad (switching).....	27,477 00	38,992 53	66,469 53	Premium of insurance.....			
From sale of material (Dredgers Nos. 1 and 2, and tugs).....	20 31	92 51	112 82	Telephone service.....			
From dredging.....	300 00	3,006 56	4,392 46	Furniture for various offices.....			
From Belt Railroad construction.....	1,385 90			Watchman and supplies for the tug "Gov. Perkins".....			
From lighting (Postoffice station "D" and miscellaneous).....	3,183 71	2,824 35	6,008 06	Lighting for account of Post-office and ferry slips.....			
From discount account.....		26 63	26 63	Revenue refunded.....			
Total receipts.....	\$772,989 03	\$825,191 43	\$1,598,180 46	Books, stationery, and print'g.....			
Amount drawn from San Francisco Harbor Improvement Fund.....	689,443 51	702,938 69	1,392,382 20	Messenger and Janitor.....			
				Advertising, exchange, livery, marine reports, water, care of clocks, fuel, auditing, etc.....			
				Belt Railroad, construction and maintenance.....	28,198 79	30,225 89	58,424 68
				Fire account.....	76,346 58	67,316 66	143,663 24
				Seawall lots and accounts.....	5,871 33	5,155 50	11,026 83
				Dredging (contract).....	3,060 93		3,060 93
				Union Ferry Depot (expense).....	1,900 50	7,691 25	9,591 75
					29,589 72	29,786 74	59,376 46
				Amount remitted to State Treasurer.....	\$748,353 25	\$767,623 17	\$1,515,976 42
					714,079 29	760,506 95	1,474,586 24
					\$1,462,432 54	\$1,528,130 12	\$2,990,562 66

EXHIBIT B.

The following shows the condition of the San Francisco Harbor Improvement Fund, June 30, 1902.

Amount in fund July 1, 1900	\$87,415 74	
Amount remitted to June 30, 1902	1,474,586 24	
Amount of drafts returned	11,623 43	
		\$1,573,625 41
Amount drawn out to June 30, 1902 (ordinary expenditures)	\$1,392,382 20	
Amount transferred to San Francisco Depot Sinking Fund	111,144 00	
Amount in fund July 1, 1902	70,099 21	
		\$1,573,625 41

EXHIBIT C.

STATEMENT OF THE SAN FRANCISCO DEPOT SINKING FUND.

1900—July 1	To amount transferred from S.F. Harbor Imp. Fund.	\$4,631 00	
Aug. 1	" " " " " "	4,631 00	
Sept. 1	" " " " " "	4,631 00	
Oct. 1	" " " " " "	4,631 00	
Nov. 1	" " " " " "	4,631 00	
Dec. 1	" " " " " "	4,631 00	
1901—Jan. 1	" " " " " "	4,631 00	
Feb. 1	" " " " " "	4,631 00	
Mar. 1	" " " " " "	4,631 00	
April 1	" " " " " "	4,631 00	
May 1	" " " " " "	4,631 00	
June 1	" " " " " "	4,631 00	
			\$55,572 00
1901—July 1	To amount transferred from S.F. Harbor Imp. Fund.	\$4,631 00	
Aug. 1	" " " " " "	4,631 00	
Sept. 1	" " " " " "	4,631 00	
Oct. 1	" " " " " "	4,631 00	
Nov. 1	" " " " " "	4,631 00	
Dec. 1	" " " " " "	4,631 00	
1902—Jan. 1	" " " " " "	4,631 00	
Feb. 1	" " " " " "	4,631 00	
Mar. 1	" " " " " "	4,631 00	
April 1	" " " " " "	4,631 00	
May 1	" " " " " "	4,631 00	
June 1	" " " " " "	4,631 00	
			55,572 00
			\$111,144 00
	Balance in Fund, June 30, 1900		412,159 00
			\$523,303 00

EXHIBIT D.

COMPARATIVE STATEMENT OF RECEIPTS AND DISBURSEMENTS—1863-1902.

Fiscal Year.	Receipts.	Expenses.	Percentage per Year	Construction and Repairs.	Seawall.	Dredging.	Purchase of Dredgers, Scows, and Repairs.	Constructing and Operating Belt Railroad	Miscellaneous.	Remitted State Treasurer.	Drawn from State Treasurer.
		Salaries (Commissioners, Secretaries, Clerks, Wharfingers, Collectors), Law Fees, Fuel, Rent, Printing, Stationery, etc.		Building Sheds, Wharves, Bulkheads, etc., Ferry Foundation, and Repairs on Same		All Dredging up to 1874 was Done under Contract, Since by Commissioners					
1863-64	\$117,848 28	\$25,354 84	21.50	\$67,599 82						\$71,897 39	\$47,680 02
1864-65	177,393 66	32,439 10	18.28	80,875 15		\$4,106 50				123,365 23	52,334 82
1865-66	183,716 80	35,531 42	19.02	19,065 42	\$3,607 00	10,300 00				132,023 96	47,568 50
1866-67	336,409 36	41,233 95	11.95	88,525 78	266 50	41,021 00			330 62	268,573 45	64,345 94
1867-68	294,304 28	55,531 92	18.87	82,791 27	250,991 97	32,338 00			561 18	217,528 06	354,121 12
1868-69	287,890 53	52,130 77	18.11	38,779 83	262,323 13	80,100 00				212,532 07	310,213 27
1869-70	252,649 56	54,684 40	21.65	35,545 04	163,892 68	35,258 00				180,623 37	272,670 93
1870-71	148,917 03	37,732 65	25.37	53,693 31		53,944 40				96,097 20	73,914 13
1871-72	195,031 14	61,006 70	31.28	78,146 62		32,293 20				105,877 82	53,944 40
1872-73	190,330 47	69,858 63	36.50	78,776 28		42,478 56	\$34,070 00			166,150 23	80,640 23
1873-74	265,709 06	77,938 05	29.33	104,175 98	2,321 85	33,835 71	3,725 00		6,344 01	168,769 62	168,769 62
1874-75	373,541 72	68,617 14	18.37	209,540 80	1,078 25	40,802 70			924 99	189,549 17	189,549 17
1875-76	372,078 74	65,976 57	17.73	162,000 25		25,252 94			565 47	249,450 44	146,716 69
1876-77	448,087 25	79,208 85	17.63	284,023 05		38,214 40	15,334 45			310,909 33	266,661 37
1877-78	446,516 82	84,326 72	18.88	112,628 95	4,803 38	60,454 68	82,068 79		1,665 88	285,521 50	162,712 80
1878-79	466,420 55	97,162 63	20.83	164,560 55	107,091 87	51,675 28	3,948 84		595 50	274,370 87	241,764 39
1879-80	427,637 49	100,667 57	23.53	141,022 14	309,652 90	51,462 52	1,173 50		2,510 53	240,414 91	419,429 27
1880-81	419,437 49	102,746 75	24.49	199,972 97	383,174 96	48,743 45			4,785 32	204,919 90	527,487 44
1881-82	455,005 64	104,255 15	22.91	86,102 58	92,804 98	51,457 60			4,320 00	249,919 90	131,140 42
1882-83	436,030 54	107,883 69	24.74	179,089 82	34,949 22	60,780 40	5,247 00		28,129 37	194,860 84	165,586 90
1883-84	501,243 25	115,231 30	22.98	173,997 19	76,461 63	60,780 40			6,863 55	254,497 78	186,588 60
1884-85	500,702 10	116,194 14	23.20	248,607 11	195,706 95	52,258 80			4,933 50	259,702 01	376,700 41
1885-86	483,851 04	117,693 22	24.32	197,612 03	157,953 82	46,675 40			4,324 00	249,431 18	289,838 61

1886-87	527,890 96	128,584 90	24.35	153,529 29	53,403 50	78,046 99	---	---	5,742 95	245,509 83	136,926 50
1887-88	580,152 51	138,993 05	23.95	294,855 61	36,360 98	54,082 70	---	---	5,450 62	294,861 66	244,452 11
1888-89	619,537 54	139,552 66	20.91	231,353 84	101,586 24	62,424 96	---	---	10,152 33	321,605 12	247,137 61
1889-90	599,105 58	131,262 56	21.91	301,063 18	115,419 48	51,588 91	---	---	5,257 21	306,148 20	311,633 96
1890-91	600,821 20	115,579 39	19.23	269,542 63	65,810 20	53,230 81	---	---	9,600 62	319,721 19	232,991 25
1891-92	651,112 11	114,860 89	17.64	275,083 97	122,112 90	56,081 70	---	---	7,663 95	360,206 68	366,205 44
1892-93	625,957 55	121,882 55	19.34	319,991 36	72,025 44	54,871 48	25,384 00	81,307 46	5,771 81	334,575 70	320,477 89
1893-94	583,074 58	123,039 43	21.08	338,570 00	23,158 22	58,357 87	---	15,933 10	4,815 50	281,417 59	260,327 66
1894-95	586,618 61	137,684 55	23.47	444,366 85	55 00	48,132 14	31,532 29	30,755 26	4,827 05	215,278 73	326,013 26
1895-96	599,207 89	135,267 13	22.57	390,935 35	6,658 01	50,295 44	6,343 58	15,189 01	6,582 96	285,523 58	290,929 16
1896-97	562,123 05	133,138 80	23.68	319,055 55	---	55,686 31	---	11,422 27	5,938 89	256,612 21	226,419 29
1897-98	581,661 05	151,598 53	26.06	313,603 11	---	54,278 81	---	18,458 63	8,833 26	224,702 65	189,813 94
1898-99	630,455 62	170,678 51	27.07	293,560 22	---	54,102 91	---	25,539 38	10,553 75	334,870 27	258,799 42
1899-00	695,033 41	150,533 68	21.66	385,662 52	---	60,593 79	---	37,476 81	10,768 53	633,779 53	583,751 45
1900-01	772,989 03	148,669 59	19.23	460,741 42	3,060 93	48,066 74	---	76,346 58	11,467 99	714,079 29	689,443 51
1901-02	825,191 43	164,294 43	19.91	460,548 25	---	67,186 12	---	67,316 66	8,277 71	760,506 95	702,938 69
	\$17,828,334 99	\$3,909,076 81	---	\$5,089,625 09	\$2,648,731 99	\$1,840,481 12	\$208,847 45	\$394,716 70	\$189,235 30	\$10,610,448 97	\$10,028,670 19
Drafts returned											
Balance in San Francisco Depot Sinking Fund June 30, 1900											
Amount transferred to San Francisco Depot Sinking Fund, fiscal years 1900-01 and 1901-02											
Balance in Treasury June 30, 1902											
										11,623 43	412,159 00
										---	111,144 00
										---	70,099 21
										\$10,622,072 40	\$10,622,072 40

EXHIBIT E.

RECEIPTS AND DISBURSEMENTS FOR THE TWO FISCAL YEARS ENDING
JUNE 30, 1902.

RECEIPTS.	1900-1901.	1901-1902.	Total.
Fishermen's Wharf	\$4,074 25	\$4,372 75	\$8,447 00
Sections "A," "B," 1, Seawall, and Powell Street Wharf	12,070 93	13,187 74	25,258 67
Section 2, Seawall Wharf	6,044 41	4,868 10	10,912 51
Section 3, Seawall Wharf	16,111 67	13,235 79	29,347 46
Lombard Street Car Ferry Slips, Freight Depots, and Tolls	42,072 67	46,684 07	88,756 74
Section 4, Seawall Wharf	9,797 87	3,596 40	13,394 27
Filbert Street Wharf (Pier No. 21)		1,719 67	1,719 67
Union Street Wharf No. 2 (Pier No. 19)		106 60	106 60
Union Street Wharf No. 1 (Pier No. 17)	19,078 56	12,096 82	31,175 38
Green Street Wharf (Pier No. 15)	22,406 63	21,409 28	43,815 91
Vallejo Street Wharf (Pier No. 13)	10,398 07	11,347 48	21,745 55
Broadway Street Wharf No. 2 (Pier No. 11)	14,417 43	14,860 27	29,277 70
Broadway Street Wharf No. 1 (Pier No. 9)	19,965 50	20,098 94	40,064 44
Pacific Street Wharf (Pier No. 7)	17,722 35	16,667 45	34,389 80
Jackson Street Wharf (Pier No. 5)	16,735 44	17,810 88	34,546 32
Washington Street Wharf (Pier No. 3)	12,027 10	13,875 48	25,902 58
Clay Street Wharf (Pier No. 1)	4,882 68	5,868 06	10,750 74
Union Depot and Ferry House, Ferry Slips 1, 2, 3, 4, 5, 6, 7, 8, Tolls, and P. O. Building	109,649 34	112,499 25	222,148 59
Mission Street Wharf No. 1 (Pier No. 2)	13,954 06	16,979 30	30,933 36
Mission Street Wharf No. 2 (Pier No. 4)	29,120 40	26,132 97	55,253 37
Howard Street Wharf No. 1 (Pier No. 6)	15,135 35	17,791 79	32,927 14
Howard Street Wharf No. 2 (Pier No. 8)	12,958 95	10,564 05	23,523 00
Howard Street Wharf No. 3 (Pier No. 10)	7,515 35	12,703 19	20,218 54
Folsom Street Wharf No. 1 (Pier No. 12)	20,204 80	18,000 00	38,204 80
Folsom Street Wharf No. 2 (Pier No. 14)	23,305 85	21,845 32	45,151 17
Harrison Street Wharf (Pier No. 16)	8,188 35	10,980 27	19,168 62
Steuart Street Wharf (Pier No. 20)	8,843 55	17,113 29	25,956 84
Spear Street Wharf (Pier No. 24)	12,779 03	12,031 18	24,810 21
Main Street Car Ferry Slips and Tolls	20,844 51	23,120 16	43,964 67
Main Street Wharf (Pier No. 28)	17,936 89	14,927 95	32,864 84
Beale Street Wharf (Pier No. 32)	28,772 22	23,231 08	52,003 30
Fremont Street Wharf (Pier No. 34)	12,749 52	13,045 16	25,794 68
Pacific Mail Wharf (Pier No. 40)	26,700 00	30,000 00	56,700 00
Second Street Car Ferry Slips and Tolls	94,232 62	91,408 59	185,641 21
Third Street Wharf	6,342 89	7,622 86	13,965 75
Berry Street Wharf	8,918 00	10,753 77	19,671 77
Channel Street Wharf	5,979 85	8,542 45	14,522 30
Center Street Wharf	4,181 03	4,747 22	8,928 25
California Dry Dock	6,600 00	6,600 00	13,200 00
Sale of old material	3,400 59	3,794 95	7,195 54
China Basin		2,000 00	2,000 00
Central Basin	1,667 50	1,571 00	3,238 50
Revenue from seawall lots	10,002 50	36,480 00	46,482 50
Belt Railroad, revenue	27,477 00	38,992 53	66,469 53
Belt Railroad construction	1,385 90	3,006 56	4,392 46
Tug "Gov. Perkins"	950 00		950 00
Wharfage, damages, sales, etc.	263 40	2,337 27	2,600 67
U. S. Customs Department (rent and dockage)	1,620 00	1,620 00	3,240 00
Postoffice Station "D" and Ferry Slip No. 8 (lighting)	3,183 71	2,645 10	5,828 81
Sale of old material (Dredgers 1-2 and Tugs)	20 31	92 51	112 82
Dredging	300 00		300 00
Pacific States Tel. & Tel. Co. (lighting tele- phone booths)		179 25	179 25
Discount account		26 63	26 63
Amount drawn from the San Francisco Har- bor Improvement Fund	\$772,989 03	\$825,191 43	\$1,598,180 46
	689,443 51	702,938 69	1,392,382 20
Totals	\$1,462,432 54	\$1,528,130 12	\$2,990,562 66

EXHIBIT E—*Continued.*RECEIPTS AND DISBURSEMENTS FOR THE TWO FISCAL YEARS ENDING
JUNE 30, 1902.

DISBURSEMENTS.	1900-1901.	1901-1902.	Total.
Administration account—			
Salaries of Commissioners	\$8,800 00	\$9,600 00	\$18,400 00
Salaries of Chief Engineer and Assistants ..	8,141 25	8,378 75	16,520 00
Salaries of Chief Wharfinger and Assistants ..	4,375 00	5,966 15	10,341 15
Salary of Attorney	2,200 00	2,400 00	4,600 00
Salaries of Watchmen	4,401 40	5,163 30	9,564 70
Collection of revenue—			
Salaries of Secretaries and Clerks	7,825 00	11,615 95	19,440 95
Salaries of Wharfmngers	24,445 85	25,424 75	49,870 60
Salaries of Collectors	15,085 60	14,554 85	29,640 45
Expense account	21,602 13	24,412 84	46,014 97
Urgent repairs	58,909 74	64,684 48	123,594 22
Repairs (contract)	145,624 82	195,586 68	341,211 50
Pile-driving	24,893 03	14,629 61	39,522 64
Cleaning wharves, bulkhead, and streets	21,203 64	24,300 26	45,503 90
Wharf offices and furniture	619 13	938 04	1,557 17
Legal expenses	1,000 00	1,752 80	2,752 80
Fire account	5,871 33	5,155 50	11,026 83
Dredger No. 1	12,737 35	13,773 45	26,510 80
Dredger No. 2	14,568 60	18,091 59	32,660 19
Tug "Governor Markham"	8,804 53	15,615 98	24,420 51
Tug "Governor Irwin"	10,055 76	12,013 85	22,069 61
Construction account	231,313 83	185,647 48	416,961 31
Seawall account	2,344 98	-----	2,344 98
Dockage refunded	549 35	147 20	696 55
Tolls refunded	118 76	-----	118 76
Wharfage refunded	-----	105 00	105 00
Rent refunded	131 25	-----	131 25
Belt Railroad, construction	37,349 31	19,314 80	56,664 11
Belt Railroad, operating and maintenance	38,997 27	48,001 86	86,999 13
Wharfage, damages, sales, etc.	309 00	-----	309 00
Postoffice Sta. D, and Ferry Slip No. 8 (lighting)	3,091 87	2,523 87	5,615 74
Union Depot and Ferry House, Ferry Slips			
1, 2, 3, 4, 5, 6, 7, 8, tolls, and P. O. building ..	29,589 72	29,786 74	59,376 46
Tug "Governor Perkins"	777 30	346 14	1,123 44
Improving seawall lots	715 95	-----	715 95
Dredging	1,900 50	7,691 25	9,591 75
	\$748,353 25	\$767,623 17	\$1,515,976 42
Remitted State Treasurer, account San Francisco Harbor Improvement Fund	714,079 29	760,506 95	1,474,586 24
Totals	\$1,462,432 54	\$1,528,130 12	\$2,990,562 66

EXHIBIT F.

STATEMENT OF SAN FRANCISCO HARBOR IMPROVEMENT FUND FOR
TWO FISCAL YEARS ENDING JUNE 30, 1902.

RECEIPTS.

1900—Aug.---	To amount remitted by Commissioners for July	\$49,755 30	
Sept.---	" " " " " " Aug.	61,608 78	
Oct.---	" " " " " " Sept.	65,498 71	
Nov.---	" " " " " " Oct.	58,317 72	
Dec.---	" " " " " " Nov.	59,992 67	
1901—Jan.---	" " " " " " Dec.	62,727 41	
Feb.---	" " " " " " Jan.	56,388 86	
Mar.---	" " " " " " Feb.	55,881 83	
April---	" " " " " " Mar.	58,728 42	
May---	" " " " " " April	63,956 05	
June---	" " " " " " May	58,731 09	
July---	" " " " " " June	62,492 45	
			\$714,079 29
1901—Aug.---	" " " " " " July	\$84,874 60	
Sept.---	" " " " " " Aug.	53,893 18	
Oct.---	" " " " " " Sept.	57,850 03	
Nov.---	" " " " " " Oct.	67,548 54	
Dec.---	" " " " " " Nov.	66,829 92	
1902—Jan.---	" " " " " " Dec.	68,370 59	
Feb.---	" " " " " " Jan.	59,538 53	
Mar.---	" " " " " " Feb.	58,897 48	
April---	" " " " " " Mar.	59,526 84	
May---	" " " " " " April	62,838 65	
June---	" " " " " " May	60,680 11	
July---	" " " " " " June	59,658 48	
			760,506 95
	Total amount remitted		\$1,474,586 24
	Balance in S. F. Harbor Imp. Fund July 1, 1900.....		87,415 74
	Drafts returned		11,623 43
			\$1,573,625 41

DISBURSEMENTS, 1900-1901.

Date.	Order.	No.	On Account of.	Amount.
1900				
July 7	Mutual Electric Light Co.	2237	Light	\$1,363 01
7	City Street Imp. Co.	2238	Repairing Howard No. 3	5,197 32
7	Union Lumber Co.	2239	Paving	1,377 00
9	Spring Valley Water Works	2240	Water	223 35
9	Str. "Willamette" (Pac. Coast Co., agents)	2241	Rebate of dockage	15 20
10	Black Diamond Coal Mining Co.	2242	Coal	1,030 84
12	Union Lumber Co.	2243	Paving	183 25
12	Bancroft-Whitney Co.	2244	U. S. Notes	9 00
12	Baker & Hamilton	2245	Hardware	761 68
13	Dundon Bridge and Con. Co.	2246	Removing and driving piles	497 00
13	Dundon Bridge and Con. Co.	2247	Piles	756 92
13	T. J. Moynihan	2248	Repairs, Belt Railroad	9 70
13	Dunham, Carrigan & Hayden Co.	2249	Hardware	439 49
13	James Young	2250	Millwork	187 35
13	John W. Murphy	1	Keeping horse	46 00
13	C. J. Hendry's Son & Co.	2	Chandlery	249 83
13	James Mathews	3	Washing for fire house	3 50

EXHIBIT F—Continued.

DISBURSEMENTS, 1900-1901—Continued.

Date.	Order.	No.	On Account of.	Amount.
1900				
July 13	C. G. Clinch & Co.	4	Paints, oils, etc.	\$7 15
13	Merchants' Exchange Association.	5	Reporting	25 00
13	Cahill & Hall Elevator Co.	6	Repairing elevator	17 60
13	S. F. & San Mateo Ry. Co.	7	Power	60 00
13	Holbrook, Merrill & Stetson	8	Hardware	10 97
13	W. T. Garratt & Co.	9	Repairs	15 60
13	Wm. Bateman	10	Stands for water coolers	37 50
13	James Byrne, Jr.	11	Petty cash bills	32 50
13	James A. McMahon	12	Repairing Clay and Washington St. bulkhead	455 52
13	Arctic Oil Works	13	Oil	47 25
13	Bender Bros.	14	Railroad ties	72 00
13	Spoiled	15	.....	.....
13	Goodyear Rubber Co.	16	Hose	14 91
14	Cal. Northwestern Ry. Co.	17	Repairs on cars	38 60
14	G. M. Josselyn & Co.	18	Chain	111 91
14	Searey Furniture Co.	19	Chairs, etc.,	15 00
16	F. H. McConnell	20	Care of clocks	15 00
16	City Front Stables	21	Keeping horse	20 00
17	The Guide Publishing Co.	22	Guides	10 50
17	H. S. Crocker Co.	23	Stationery	36 65
17	Flinn & Treacy	24	Basalt blocks	140 84
17	Pacific Rolling Mill Co.	25	Plates and bolts	250 00
18	Darby Laydon	26	Extra piling Car Ferry Slip, Main St.	1,465 92
19	S. F. Timber Preserving Co.	27	Piles	1,287 91
19	Dundon Bridge and Con. Co.	28	Repairing and repiling Pier No. 5 ..	2,968 60
19	G. F. Buswell	29	Frictions	25 00
19	Board of State Harbor Commissioners	30	Payrolls	10,944 35
25	Board of State Harbor Commissioners	31	Payrolls	8,740 80
26	S. E. Slade Lumber Co.	32	Lumber	5,730 55
26	Rowlands & Laughton ..	33	Repairs	193 79
26	Pacific Tel. & Tel. Co.	34	Telephones	139 60
26	Darby Laydon	35	Extra work, Main Street	862 61
28	James Mathews	36	Washing for fire house	3 50
30	Frank Greg	37	Sawdust	5 00
30	Mysell-Rollins Co.	38	Legal pads	8 75
31	Black Diamond Coal Mining Co.	39	Coal	965 91
Aug. 4	City Street Imp. Co.	40	Fishermen's Wharf	2,321 62
6	Dundon Bridge and Con. Co.	41	Repairing Pier No. 5	1,769 10
7	James A. McMahon	42	Repiling and repairing Spear Street ..	2,146 56
7	James A. McMahon	43	Incline at Spear Street	840 00
8	George G. Rundle	44	Dredger poles	61 00
8	E. M. Graney	45	Shoeing horses	5 00
9	U. S. Laundry Ass'n	46	Washing	11 55
9	James A. McMahon	47	Repairs, Pier No. 27	1,188 55
9	Gray Bros.	48	Breakwater (Fishermen's Wharf) ..	1,378 48
9	Mutual Electric Light Co.	49	Lights	1,373 96
10	City Street Imp. Co.	50	Driving piles at seawall	135 00
10	H. R. Rood & Co.	51	Piles	795 76
11	James Byrne, Jr.	52	Petty cash expenses	44 00
13	City Front Stables	53	Keeping horse	20 00
13	F. B. Dallam & Co.	54	Brushes, etc.	21 89
13	Merchants' Exchange Association.	55	Reporting	25 00

EXHIBIT F—Continued.

DISBURSEMENTS, 1900-1901—Continued.

Date.	Order.	No.	On Account of.	Amount.
1900				
Aug. 13	C. G. Clinch & Co.	56	Oil, paint, etc.	\$15 59
13	Payne's Bolt Works	57	Bolts	449 60
13	Bancroft-Whitney Co.	58	U. S. Notes, Vol. 7	6 50
13	Commercial Pub. Co.	59	Advertising	24 75
13	Dunham, Carrigan & Hayden Co.	60	Hardware	29 50
13	Callahan Paint Co.	61	Painting tug "Governor Irwin"	69 70
13	S. F. & San Mateo Ry Co.	62	Power	20 00
13	S. F. Dry Dock Co.	63	Docking tug "Governor Irwin"	67 60
13	John W. Murphy	64	Keeping horses	47 65
13	Columbia Machine Wks	65	Chain drum	170 00
13	J. C. Winans	66	Packing	20 79
13	H. S. Crocker Co.	67	Books, stationery, etc.	186 22
13	Arctic Oil Works	68	Oil	30 98
13	William J. Brady	69	Repairs on locomotive	9 60
13	Cunningham, Curtiss & Welch	70	Toilet paper	20 00
13	Marshutz & Cantrell	71	Sheaves for dredgers	98 50
13	Holbrook, Merrill & Stetson	72	Drip pans, etc.	8 25
13	P. F. Dundon's S. F. Iron Works	73	Tugs and dredger repairs	226 53
13	Baker & Hamilton	74	Hardware	173 28
14	Buchanan Bros.	75	Rags	4 50
14	Guide Publishing Co.	76	Guides	10 50
14	Kuss & Storz	77	Painting Postoffice	43 00
14	Charles F. Doe & Co.	78	Lumber	880 76
14	Langley & Michaels Co.	79	Disinfectant	10 78
14	Goodyear Rubber Co.	80	Hose, etc.	23 40
16	H. R. Rood & Co.	81	Piles	1,006 46
16	City Street Imp. Co.	82	Fishermen's Wharf	1,805 70
16	T. J. Moynihan	83	Repairs, tug "Governor Irwin"	608 10
16	F. H. McConnell	84	Care of clocks	15 00
16	National Bank of D. O. Mills	85	Exchange	98 95
16	Pacific Rolling Mill Co.	86	Fenders	32 00
17	J. Eugene Freeman	87	Architect fees	257 00
17	Simpson Brush and Broom Co.	88	Brooms	7 50
20	Spring Valley Water Works	89	Water	237 35
20	Board of State Harbor Commissioners	90	Payrolls	10,825 45
23	Darby Laydon	91	Piling at Main St. Wharf	165 52
23	Thomas Eagan	92	Laying tracks and switches, Belt Railroad	1,280 00
23	James A. McMahon	93	Repairs on Dolphin bet. Slips Nos. 2 and 3	2,729 45
23	James A. McMahon	94	Repairs on Dolphin bet. Slips Nos. 3 and 4	2,917 10
23	James A. McMahon	95	Repairs on Dolphin bet. Slips Nos. 4 and 5	2,439 31
23	Pacific Tel. & Tel. Co.	96	Telephones	139 70
24	City Street Imp. Co.	97	Driving piles at Fishermen's Wharf	176 00
24	S. E. Slade Lumber Co.	98	Lumber	5,225 62
25	Board of State Harbor Commissioners	99	Payrolls	8,907 70
27	City Street Imp. Co.	100	Howard No. 3, Pier No. 10	12,518 84
28	Newsom & McNeil	101	Shed on Slip bet. Piers 5 and 7 and office	1,742 00
28	H. R. Rood & Co.	102	Piles (contract)	1,005 34
28	Murray Bros.	103	Repairs, scow driver	6 00
28	S. F. Timber Preserving Co.	104	Creosoting	1,507 50
28	Williams-Diamond Co.	105	Injector check	9 00
28	Black Diamond Coal Mining Co.	106	Coal	951 75

EXHIBIT F—Continued.

DISBURSEMENTS, 1900-1901—Continued.

Date.	Order.	No.	On Account of.	Amount.
1900				
Aug. 29	Thos. Day Co.	107	Gas and electric fixtures, Postoffice	\$1,164 00
29	West Coast Wire and Iron Works.	108	Wire fence, N. P. C. R. R. Co.	267 60
29	Bender Bros.	109	Railroad ties.	144 00
30	Rowlands & Laughton.	110	Repairs.	414 66
30	J. D. Spreckels & Bros. Co.	111	Cement.	6,242 25
30	J. D. Spreckels & Bros. Co.	112	Rebate of dockage, Str. Zealandia.	130 75
31	Julian B. Harries.	113	Experting accounts.	112 50
Sept. 5	Chas. True.	114	Services as engineer.	27 10
6	C. G. Clinch & Co.	115	Paints, oil, etc.	14 25
6	California Northwest'n Ry. Co.	116	Sign.	19 00
6	Frank Greg.	117	Sawdust.	5 00
7	Hyde Construction Co.	118	Repairing and repiling bulkhead bet. Union St. and Car Ferry slip No. 1.	1,537 50
7	T. J. Crowley.	119	Shoeing horses.	10 00
7	James Mathews.	120	Washing for fire house.	3 50
7	Mutual Electric Light Co.	121	Lights.	1,478 85
12	F. H. McConnell.	122	Care of clocks.	15 00
12	S. F. Timber Preserving Co.	123	Creosoting.	1,056 07
12	Kuss & Storz.	124	Painting Postoffice, Station "D".	43 00
13	Bay City Mfg. Co.	125	Packing.	3 65
13	Geo. G. Rundle.	126	Repairing tug "Gov. Irwin" and Dredger No. 2.	1,935 68
13	Scott & Magner.	127	Oats.	8 63
13	Vulcan Iron Works.	128	Sheave wheel.	31 50
13	C. J. Hendry's Son & Co.	129	Chandlery.	84 17
13	The Guide Publishing Co.	130	Guides.	10 50
13	James Young.	131	Millwork.	130 25
13	Merchants' Exchange Ass'n.	132	Reporting.	25 00
13	Union Lumber Co.	133	Paving Pier No. 12.	1,089 54
13	Langley & Michaels Co.	134	Disinfectant.	21 38
13	Sidney L. Plant.	135	Packing.	16 50
13	Tug "Ida W." B. H. Tietjen, agent.	136	Towing.	30 00
13	Risdon Iron and Locomotive Works.	137	Repairing locomotive.	82 02
13	Fairbanks, Morse & Co.	138	Scales.	105 00
13	Commercial Publishing Co.	139	Advertising.	24 00
13	John W. Murphy.	140	Boarding horses, etc.	41 30
13	City Street Improvement Co.	141	Piles at Fishermen's Wharf.	220 00
13	Market Street R. R. Co.	142	Rails.	234 68
13	H. S. Crocker Co.	143	Stationery.	51 60
13	G. W. Josselyn & Co.	144	Chain.	67 40
13	Simpson Lumber Co.	145	Mast.	10 00
13	E. W. Tucker & Co.	146	Repairs on Belt Railroad.	152 66
13	W. P. Fuller & Co.	147	Asbestine.	10 75
13	Dunham, Carrigan & Hayden Co.	148	Hardware.	41 62
13	Department of State Printing.	149	Printing.	17 00
13	W. T. Garratt & Co.	150	Repairs on tugs.	88 26
13	Leonard & Ellis.	151	Oil.	36 08
13	Dundon Bridge and Construction Co.	152	Extension to Ferry Slip between Piers Nos. 5 and 7.	854 00

EXHIBIT F—*Continued.*DISBURSEMENTS, 1900-1901—*Continued.*

Date.	Order.	No.	On Account of.	Amount.
1900				
Sept. 13	F. B. Dallam & Co.	153	Cheese cloth sponges	\$5 38
13	The Painters' Supply Co.	154	Painting shed	25 00
13	Gray Bros.	155	Rock	324 94
13	Gray Bros.	156	Breakwater at Fishermen's dock ..	2,428 00
13	Geo. T. Wise	157	Claim for damages	300 00
14	Studebaker Bros. Mfg. Co.	158	Repairs on sprinklers	33 65
14	Tubbs Cordage Co.	159	Rope	86 06
14	Black Diamond Coal Mining Co.	160	Rebate of dockage, bk. "Germania" ..	40 80
14	John McClellan	161	Covering boiler, "Gov. Irwin"	15 00
14	Baker & Hamilton	162	Hardware	475 70
15	S. F. Towel Co.	163	Towel service	7 00
17	J. Metcalf	164	Lloyds' register	24 00
18	James A. McMahon	165	Delay on contract, Spear street	415 00
19	Board of State Harbor Commissioners	166	Payrolls	10,765 80
20	S. E. Slade Lumber Co.	167	Lumber	5,225 61
20	Spring Valley Water Works	168	Water	240 00
20	H. R. Rood & Co.	169	Coating piles	1,523 20
20	Frank Greg	170	Sawdust	5 00
20	Newsom & McNeil	171	Shed on Howard No. 3	2,894 85
20	National Bank of D. O. Mills & Co.	172	Exchange	98 86
21	Pacific States Tel. & Tel. Co.	173	Telephones	138 95
25	Bay City Mfg. and Rubber Co.	174	Packing	20 14
25	E. M. Graney	175	Shoeing horses	5 00
25	Bancroft-Whitney Co.	176	California Reports, etc.	8 50
26	Board of State Harbor Commissioners	177	Payrolls	8,669 15
27	S. F. Paving Co.	178	Paving in front Postoffice	1,753 25
27	Rowlands & Laughton	179	Blacksmithing	400 59
28	Wm. J. Brady	180	Repairs	8 95
28	P. F. Dundon's S. F. Iron Works	181	Repairs on tug "Gov. Markham" and Dredger No. 1	459 88
28	City Front Stables	182	Keeping horse	20 00
28	Arctic Oil Works	183	Oil	34 25
28	Michael Hodge	184	Drying	13 75
28	Goodyear Rubber Co.	185	Hose	19 77
28	C. G. Clinch & Co.	186	Paints, oils, etc.	105 96
28	Str. "Milverton," J. D. Spreckels & Bros., agts. G. E. Dow Pumping Engine Co.	187	Rebate of dockage	36 00
28	Balfour, Guthrie & Co.	188	Repairs on tugs	153 60
28	Main St. Iron Works	189	Rebate of tolls	5 00
28	Tubbs Cordage Co.	190	Repairs on tug "Gov. Irwin"	16 11
29	Tubbs Cordage Co.	191	Rope	35 36
29	W. T. Garratt & Co.	192	Repairs on Dredger No. 2	51 75
29	J. J. Moore, Str. "Flintshire"	193	Rebate of dockage	29 25
29	Cahill & Hall Elevator Co.	194	Care of elevator	8 50
29	Buchanan Bros.	195	Rags	5 00
29	Black Diamond Coal Mining Co.	196	Coal	1,131 66
29	Commercial Publishing Co.	197	Advertising	33 75
Oct. 5	Hyde Construction Co.	198	Repiling and repairing bulkhead bet. Union St. and Car Ferry Slip No. 1	2,912 40
5	S. E. Slade Lumber Co.	199	Lumber	4,318 84
6	Pacific Marine Supply Co.	200	Spar	12 00

EXHIBIT F—*Continued.*DISBURSEMENTS, 1900-1901—*Continued.*

Date.	Order.	No.	On Account of.	Amount.
1900				
Oct. 8	James Mathews.....	201	Washing for fire house.....	\$3 50
9	Simpson Brush & Broom Co.....	202	Brooms.....	7 50
10	S. E. Slade Lumber Co.....	203	Lumber.....	5,224 48
10	Cal. Transportation Co.....	204	Rebate of dockage.....	7 00
10	Cal. Fireworks Co., Ltd.....	205	Flags.....	16 50
11	James Byrne, Jr.....	206	Petty cash expenses.....	53 15
11	Mutual Electric Light Co.....	207	Lights.....	1,612 56
11	National Bank of D. O. Mills & Co.....	208	Exchange.....	83 12
11	Spoiled.....	209	.....	.....
12	Commercial Publishing Co.....	210	Advertising.....	50 90
12	Newsom & McNeil.....	211	Shed on Howard No. 3.....	2,274 52
12	Gray Bros.....	212	Rock for breakwater.....	1,720 70
12	Gray Bros.....	213	Rock.....	35 25
13	Bay City Mfg. and Rubber Co.....	214	Packing.....	22 79
13	City Front Stables.....	215	Keeping horse.....	20 00
13	W. T. Garratt & Co.....	216	Repairs.....	88 40
13	A. Leity Co.....	217	Steel tape.....	10 35
13	James Young.....	218	Millwork.....	206 30
13	Baker & Hamilton.....	219	Hardware.....	78 14
13	G. F. Buswell.....	220	Frictions.....	25 00
13	Judson Mfg. Co.....	221	Switches.....	1,286 00
13	Guide Publishing Co.....	222	Guides.....	10 50
13	H. S. Crocker Co.....	223	Stationery.....	17 10
15	Merchants' Exchange Ass'n.....	224	Reporting.....	25 00
15	Boesch Lamp Co.....	225	Repairs on lamps, Belt Railroad.....	4 30
15	C. J. Hendry's Son & Co.....	226	Chandlery.....	13 31
15	J. W. Murphy.....	227	Keeping horse.....	46 15
15	Frank Greg.....	228	Sawdust.....	5 00
15	Arctic Oil Works.....	229	Oil.....	116 09
15	Britton & Rey.....	230	Maps.....	55 00
15	W. P. Fuller & Co.....	231	Asbestine.....	8 50
15	Harry M. Nagle.....	232	Brooms.....	8 00
15	Cal. Northwestern Ry. Co.....	233	Repairing cars.....	37 22
15	G. W. Fuller Desk Co.....	234	Office furniture, P. O., Station "D".....	349 18
16	Dunham, Carrigan & Hayden Co.....	235	Hardware.....	918 31
17	F. Lester & Co.....	236	Brake shoes, etc.....	128 50
18	H. R. Rood & Co.....	237	Piles.....	1,007 79
18	F. H. McConnell.....	238	Care of clocks.....	15 00
19	City Street Imp. Co.....	239	Repairing and repiling Howard No. 3 bulkhead.....	1,949 52
19	Pacific States Tel. & Tel. Co.....	240	Telephones.....	138 90
19	G. G. Rundle.....	241	Repairs on Dredger No. 1.....	676 01
20	West Coast Furniture Co.....	242	Case for Postoffice.....	320 00
22	Spring Valley Water Works.....	243	Water.....	252 80
22	Board of State Harbor Commissioners.....	244	Payrolls.....	10,708 50
23	L. & E. Emanuel (incorporated).....	245	Office fixtures, Postoffice building.....	945 00
25	Julian B. Harries.....	246	Experting books.....	37 50
25	Rowlands & Laughton.....	247	Repairs.....	212 79
25	S. E. Slade Lumber Co.....	248	Lumber.....	3,399 01
26	Board of State Harbor Commissioners.....	249	Payrolls.....	9,203 25

EXHIBIT F—Continued.

DISBURSEMENTS, 1900-1901—Continued.

Date.	Order.	No.	On Account of.	Amount.
1900				
Oct. 26	Bowers Rubber Co.....	250	Hose and couplings	\$28 00
26	Bay City Mfg. and Rubber Co.....	251	Packing	14 03
26	Black Diamond Coal Mining Co.....	252	Coal	1,221 60
26	R. S. Chapman	253	Hose carts	360 00
26	Holbrook, Merrill & Stetson	254	Water coolers, Postoffice	7 70
26	Goodyear Rubber Co.	255	Gaskets	5 70
27	Cunningham, Curtiss & Welch	256	Toilet paper	10 00
27	Arctic Oil Works	257	Oil	15 75
27	Thomas Day Co.....	258	Electric fixtures	113 00
27	Dunham, Carrigan & Hayden Co.	259	Barrow	8 33
27	Levi Strauss & Co.....	260	Towels	6 25
27	Wm. Bateman	261	Bootblack stand	225 00
27	W. & J. Sloane & Co.	262	Shades and furniture	143 65
29	Buchanan Bros.	263	Brooms, polish, etc.	25 50
29	J. J. Moore & Co., Sh. "Inveramsey"	264	Rebate of dockage	31 00
29	Wm. J. Brady	265	Repairs Belt Railroad	6 55
29	P. F. Dundon's S. F. Iron Works	266	Repairs tugs and dredgers	74 02
29	M. Greenberg's Sons	267	Repairs Dredger No. 1	4 00
29	W. W. Montague & Co.	268	Cuspidors, Postoffice	9 00
29	F. B. Dallam & Co.	269	Dusters, etc.	8 88
30	Langley & Michaels Co.	270	Disinfectant	21 41
31	Bancroft-Whitney Co.	271	U. S. Reports	6 50
Nov. 7	James H. O'Brien	272	Grading seawall lot	552 22
8	James Mathews	273	Washing for fire hose	3 50
8	Hyde Construction Co.	274	Piling "Little Mail Dock"	1,256 85
8	Wm. H. Smith & Co.	275	Mast for fender	15 00
8	Newsom & McNeil	276	Shed on Howard No. 3.	4,211 63
10	City St. Imp. Co.	277	Foundation for boiler	867 10
10	Mutual Electric Light Co.	278	Lights	1,644 34
12	Harry M. Nagle	279	Brooms	8 00
12	Guide Publishing Co.	280	Guides	10 50
12	Merchants' Exchange Ass'n	281	Reporting	25 00
12	H. R. Rood & Co.	282	Preserving piles	120 00
12	H. R. Rood & Co.	283	Piles	143 14
12	City Front Stables	284	Keeping horse	20 00
12	Arctic Oil Works	285	Oil	25 10
12	Commercial Publishing Co.	286	Advertising	22 00
12	E. M. Graney	287	Shoeing horses	10 00
12	Goodyear Rubber Co.	288	Nozzles	60 00
12	Studebaker Bros. Co.	289	Repairing sprinkler	21 30
12	The Pacific Coast Co.	290	Coal	11 45
12	Bowers Rubber Co.	291	Hose	350 00
12	James Young	292	Millwork	67 70
12	Wm. B. Isaacs	293	Steel rails	1,972 99
12	Judson Mfg. Co.	294	Railroad crossing	450 00
13	Wm. J. Brady	295	Repairs	5 80
13	Vulcan Iron Works	296	Castings, etc.	190 00
13	John W. Murphy	297	Keeping horse	40 00
13	Neville & Co.	298	Cover for bootblack stand	10 00
13	Thos. B. Eagen	299	Crossing and guard-rail work	100 00
13	S. F. Timber Preserving Co.	300	Creosoting	1,945 00
15	City Street Imp. Co.	301	Paving Howard No. 3	2,267 05
15	City Street Imp. Co.	302	Paving	300 53
15	City Street Imp. Co.	303	Dolphin on "Little Main"	160 00
15	U. S. Laundry Ass'n	304	Washing	12 85
15	Spoiled	305		

EXHIBIT F—Continued.

DISBURSEMENTS, 1900-1901—Continued.

Date.	Order.	No.	On Account of.	Amount.
1900				
Nov. 19	Gray Bros.	306	Breakwater	\$2,038 03
20	James Byrne, Jr.	307	Petty cash expenses	22 65
21	Board of State Harbor Commissioners	308	Payrolls	10,518 30
22	Newsom & McNeil	309	Building at Fishermen's Wharf	1,111 12
22	Commercial Publishing Co.	310	Advertising	89 00
22	Pacific States Tel. & Tel. Co.	311	Telephones	139 90
22	James H. O'Brien	312	Grading seawall lots	1,061 90
22	Spring Valley Water Co.	313	Water	257 05
23	Thos. B. Eagen	314	Laying railroad tracks	1,815 50
23	Hyde Construction Co.	315	Repiling and repairing Pier 38	1,792 48
23	Hyde Construction Co.	316	Repiling and repairing bulkhead between Union Street and Car Ferry Slip No. 1	1,483 29
23	James A. McMahon	317	Driving and fastening piles at Section "B"	1,255 00
24	Dundon Bridge and Construction Co.	318	Repairing bulkhead in front of dry-dock	480 68
24	Dundon Bridge and Construction Co.	319	Laying lumber	1,031 05
24	Dundon Bridge and Construction Co.	320	Repairs, "Little Main"	2,225 35
24	Dundon Bridge and Construction Co.	321	Repairing approach to dry-dock	1,856 74
24	Spoiled	322		
26	Board of State Harbor Commissioners	323	Payrolls	9,452 75
27	S. E. Slade Lumber Co.	324	Lumber	3,277 95
27	Wm. B. Isaacs	325	Rails	1,397 44
28	Bay City Mfg. & Rubber Co.	326	Packing	7 15
28	Bender Bros.	327	Railroad ties	396 00
28	Columbia Machine Wks.	328	Repairs, Dredger No. 2	35 00
28	Swan, the Painter	329	Sign, Postoffice	28 00
28	E. W. Tucker & Co.	330	Repairs, Belt Railroad	146 71
28	Dundon Bridge and Construction Co.	331	Use of pile-driver	127 95
28	Pacific Pine Co.	332	Piles	204 17
28	Goodyear Rubber Co.	333	Hose	28 50
28	S. F. & San Mateo Ry Co.	334	Electric power	30 00
28	H. S. Crocker Co.	335	Stationery	65 11
28	G. F. Buswell	336	Frictions	124 00
28	Boesch Lamp Co.	337	Repairing lamps	6 50
28	Eagle Rubber Co.	338	Gaskets	7 20
28	Olsen & Cook	339	Repairs on tugboats	5 10
28	Southern Pacific Co.	340	Rent of engine	40 03
28	John English	341	Services on tug "Gov. Markham"	28 00
28	Black Diamond Coal Mining Co.	342	Coal	1,236 28
30	Atlantic, Gulf and Pacific Co.	343	Repairing dolphin bet. Slips 4 and 5	233 30
30	J. Browell	344	Chimneys	96 25
30	Arctic Oil Works	345	Oil	8 00
Dec. 6	Newsom & McNeil	346	Shed east of Postoffice building	662 00
6	J. A. Vaughan	347	Reporting proceedings China Basin	93 80
6	Gray Bros.	348	Rock for Section B, Seawall	730 86
6	Gray Bros.	349	Rock for breakwater	1,269 60
6	F. H. McConnell	350	Care of clocks	30 00
7	Western Iron Works	351	Stairs in Santa Fé waiting room	2,130 00
7	Rowlands & Laughton	352	Blacksmithing	428 54
7	James Mathews	353	Washing for fire house	3 50
10	Cunningham, Curtiss & Welch	354	Toilet paper	10 00
10	E. M. Graney	355	Shoeing horses	5 00

EXHIBIT F—Continued.

DISBURSEMENTS, 1900-1901—Continued.

Date.	Order.	No.	On Account of.	Amount.
1900				
Dec. 10	Baker & Hamilton	356	Hardware	\$630 86
10	Arctic Oil Works	357	Oil	8 00
10	The Guide Pub. Co.	358	Guides	10 50
10	F. Fontaine	359	Rope	9 50
10	Dunham, Carrigan & Hayden Co.	360	Hardware	302 38
10	John W. Murphy	361	Boarding horses	40 00
10	Spring Valley Water Works	362	Water	252 40
10	Leonard & Ellis	363	Oil	33 80
10	Frank Greg	364	Sawdust	5 00
10	W. & J. Sloane & Co.	365	Chairs for bootblack stand	86 00
10	Charles F. Doe & Co.	366	Lumber	989 15
10	Bancroft-Whitney Co.	367	U. S. Notes No. 9	6 50
11	Dundon Bridge and Construction Co.	368	Repairs at "Little Main" Str. Wh. ..	68 18
11	Murray Bros.	369	Repairs, pile-drivers	200 30
11	San Francisco Timber Preserving Co.	370	Creosoting	2,125 16
13	F. B. Dallam & Co.	371	Dusters, brooms, etc.	18 75
13	C. J. Hendry's Son & Co.	372	Chandlery	188 56
13	H. R. Rood & Co.	373	Piles	863 20
13	O'Brien & Sons	374	Repairing buggy	97 85
13	Mutual Electric Light Co.	375	Lights	1,620 15
13	Newsom & McNeil	376	Buildings at Fishermen's dock	1,111 13
13	Newsom & McNeil	377	Extras at Fishermen's dock	54 00
15	John Twigg & Sons	378	Two skiffs	75 00
17	The Pacific Coast Co.	379	Coal	311 30
18	San Francisco Timber Preserving Co.	380	Creosoting	4,330 74
18	P. F. Dundon's S. F. Iron Works	381	Repairs to tugs and dredgers	111 50
19	Board of State Harbor Commissioners	382	Payrolls	10,477 30
20	Merchants' Exchange Association	383	Reporting	25 00
20	H. R. Rood & Co.	384	Piles	1,886 82
20	Rowlands & Laughton	385	Repairs, dredgers	493 97
20	James Byrne, Jr.	386	Petty cash expenses	39 95
20	Pacific States Tel. & Tel. Co.	387	Telephones	153 20
21	Hyde Construction Co.	388	Repiling and repairing bulkhead between Fremont and Beale	2,873 06
21	Hyde Construction Co.	389	Repiling "Little Main Dock"	418 95
21	Dundon Bridge and Construction Co.	390	Repairing approach to dry dock	182 61
21	San Francisco Timber Preserving Co.	391	Creosoting	2,513 94
21	J. D. Spreckels & Bros. Co.	392	Cement	1,335 60
22	James Young	393	Millwork	638 25
24	Charles C. Moore & Co.	394	Steam boiler	2,571 75
27	Board of State Harbor Commissioners	395	Payrolls	9,910 50
28	T. J. Crowley	396	Shoeing horses	10 00
28	City Front Stables	397	Keeping horse	20 00
28	H. R. Rood & Co.	398	Coating piles	720 00
28	Dunham, Carrigan & Hayden Co.	399	Hardware	23 70
28	Baker & Hamilton	400	Hardware	378 03
28	City Street Imp. Co.	401	Steuart St. wharf	4,650 35
28	City Street Imp. Co.	402	Foundation for boiler	289 03
28	Tubbs Cordage Co.	403	Rope	90 77
28	Bay City Mfg. and Rubber Co.	404	Packing	5 40

EXHIBIT F—*Continued.*DISBURSEMENTS, 1900-1901—*Continued.*

Date.	Order.	No.	On Account of.	Amount.
1900				
Dec. 28	C. G. Clinch & Co.	405	Oil, etc.	\$5 25
28	Judson Mfg. Co.	406	Frogs for Belt Railroad	112 00
28	Pacific Surety Co.	407	Boiler insurance	88 75
28	Pacific Coast Steamship Co.	408	Rebate of tolls	15 30
28	Payne's Bolt Works	409	Bolts	2 84
28	Spoiled	410	.....	.....
28	Commercial Publishing Co.	411	Advertising	73 85
28	Sternfeld Leather Co.	412	Flour toilet soap	15 00
28	S. E. Slade Lumber Co.	413	Lumber	2,683 05
28	San Francisco & San Joaquin Ry. Co.	414	Rental of engine	512 50
28	H. S. Crocker Co.	415	Stationery supplies	56 87
28	Arctic Oil Works	416	Oil	30 05
28	Betts Spring Co.	417	Spring, Belt Railroad	22 50
28	Dundon Bridge and Construction Co.	418	Repairing approach to dry dock	56 45
28	Cunningham, Curtiss & Welch	419	Toilet paper	10 00
28	A. Lietz Co.	420	Repairing barometer	7 50
28	Chas. C. Moore & Co.	421	Valves	6 05
28	I. Willard Beam	422	Wire gates	63 50
28	G. M. Josselyn & Co.	423	Chain	72 20
28	Geo. W. Smith	424	Reporting	20 00
28	Holbrook, Merrill & Stetson	425	Radiators	794 20
28	W. T. Garratt & Co.	426	Repairs, tug "Gov. Irwin"	25 16
29	Hyde Construction Co.	427	Addition to Second Street slip	1,882 65
29	Hyde Construction Co.	428	Furnishing and laying lumber, Brannan Street	189 40
29	Thos. Day Co.	429	Chandeliers, etc.	174 40
29	Black Diamond Coal Mining Co.	430	Coal	1,202 13
30	Thos. B. Eagen	431	Laying track on seawall lots 5 and 6	1,325 25
31	Devoto & Pedrini	432	Railroad ties	67 32
31	H. T. Holmes Lime Co.	433	Fire clay	11 75
1901				
Jan. 7	J. E. Freeman	434	Telegraph office	50 00
7	Wm. Bateman	435	Telegraph office	500 00
7	Vermont Marble Works	436	Marble	50 97
8	De Solla-Deussing Co.	437	Covering boiler	88 00
8	National Bank of D. O. Mills & Co.	438	Transfers of coin	84 30
10	Julian B. Harries	439	Experting books	37 50
10	Spoiled	440	.....	.....
10	H. R. Rood & Co.	441	Coating piles	246 00
10	Gray Bros.	442	Rock for two breakwaters	765 09
10	Gray Bros.	443	Rock for seawall	1,311 00
10	Gray Bros.	444	Rock for repairs, foot of Powell St.	59 40
11	Mutual Electric Light Co.	445	Lights	1,839 74
12	Pacific Coast Co.	446	Coal	774 63
12	City Front Stables	447	Keeping horse	20 00
12	Williams, Dimond & Co.	448	Rebate of dockage, ship "Shenan- doah"	52 40
14	C. J. Hendry's Son & Co.	449	Chandlery	112 77
14	Merchants' Exchange Association	450	Reporting	25 00
14	Bender Bros.	451	Railroad ties	312 00
16	Harry M. Nagle	452	Brooms	16 00
14	John W. Murphy	453	Keeping horses	59 30
14	Arctic Oil Works	454	Oil	8 00
14	Cal. Shipping Co.	455	Rebate of dockage, ship "Alex. Gibson"	8 80
14	M. Greenberg's Sons	456	Repairs, Dredger No. 1	6 00

EXHIBIT F—Continued.

DISBURSEMENTS, 1900-1901—Continued.

Date.	Order.	No.	On Account of.	Amount.
1901				
Jan. 14	Moise-Klinkner Co.....	457	House numbers.....	\$19 20
14	J. D. Spreckels & Bros. Co.....	458	Cement.....	28 00
14	Marshutz & Cantrell.....	459	Blocks for Dredger No. 1.....	10 62
14	Flinn & Treacy.....	460	Basalt blocks, etc.....	85 00
14	Swan, the Painter.....	461	Sign, Postoffice.....	117 50
14	C. Masoers.....	462	Doctoring horse.....	10 00
14	The Economy Mfg. Co.....	463	Spindle for blower.....	9 75
14	Boesch Lamp Co.....	464	Lantern globes.....	6 00
14	S. F. Towel Co.....	465	Laundry.....	7 00
14	P. F. Dundon's S. F. Iron Works.....	466	Repairs on tugs.....	50 95
14	Guide Publishing Co.....	467	Guides.....	10 50
14	Commercial Publishing Co.....	468	Advertising.....	72 85
14	West Coast Electrical Works.....	469	Repairs to rheostat.....	10 00
14	S. P. Nelson & Co.....	470	Packing, etc.....	76 42
14	Holbrook, Merrill & Stetson.....	471	Hardware.....	1,403 04
14	Spoiled.....	472		
14	T. J. Moynihan.....	473	Repairs on boiler.....	4 00
14	Union Lumber Co.....	474	Rebate of tolls.....	10 80
15	J. Browell.....	475	Chimneys in Wharfinger's office.....	82 00
15	E. M. Graney.....	476	Shoeing horses.....	7 50
15	F. Lester & Co.....	477	Iron work on ferry slip.....	40 22
16	James Mathews.....	478	Washing for fire house.....	3 50
16	McCormick Bros.....	479	Grate bars.....	22 50
17	H. R. Rood & Co.....	480	Coating piles.....	672 00
17	Newsom & McNeil.....	481	Building at Fishermen's Wharf.....	740 75
17	H. Huddleston & Co.....	482	Cuspidors.....	20 00
18	Rowlands & Laughton.....	483	Blacksmithing.....	349 82
18	James Byrne, Jr.....	484	Petty cash expenses.....	21 57
21	Thomas Price & Son.....	485	Analysis of cement.....	45 00
21	G. M. Josselyn & Co.....	486	Sheaves.....	15 00
21	Thomas Day Co.....	487	Electric fixtures.....	214 00
21	Columbia Machine Wks. Board of State Harbor Commissioners.....	488	Repairs, Dredger No. 1.....	64 25
21	Nonpareil Cork Manu- facturing Agency.....	489	Payrolls.....	11,256 45
21	F. H. McConnell.....	490	Cork covering.....	256 29
22	F. B. Dallam.....	491	Care of clocks.....	15 00
22	Baker & Hamilton.....	492	Brooms and sponges.....	3 00
22	Arctic Oil Works.....	493	Dust pans, etc.....	18 00
22	De Solla-Deussing Co.....	494	Oil.....	62 12
22	Payot, Upham & Co.....	495	Covering boiler, Union Depot.....	292 00
22	Pacific States Tel. & Tel. Co.....	496	Stationery.....	10 13
22	Swan, the Painter.....	497	Telephones.....	137 95
22	Geo. E. Dow Pumping Engine Co.....	498	Signs.....	49 50
22	Spring Valley Water Works.....	499	Repairs, "Gov. Irwin".....	44 90
22	Dunham, Carrigan & Hayden Co.....	500	Water.....	256 60
22	H. S. Crocker Co.....	501	Hardware.....	128 77
24	J. Haskett.....	502	Stationery.....	76 18
24	L. Feldmann & Co.....	503	Dredging at Fishermen's Wharf.....	917 67
24	S. E. Slade Lumber Co.....	504	Brushes, etc.....	15 75
24	Val Franz.....	505	Lumber.....	3,324 58
24	City Street Imp. Co.....	506	Officers—P. O. inspectors.....	496 60
24	City Street Imp. Co.....	507	Driving piles at Union, Mission 1, and Howard 3.....	310 28
24	City Street Imp. Co.....	508	Driving piles at Harrison Street.....	2,523 19
24	City Street Imp. Co.....	509	Extra work at Harrison Street.....	1,791 90

EXHIBIT F—Continued.

DISBURSEMENTS, 1900-1901—Continued.

Date.	Order.	No.	On Account of.	Amount.
1901				
Jan. 26	Atlantic, Gulf, and Pacific Co.	510	Repairs on Ferry Slip No. 1	\$722 50
26	Board of State Harbor Commissioners.	511	Payrolls	10,018 25
29	Chas. C. Moore.	512	Boiler for heating	857 25
29	E. W. Tucker & Co.	513	Material, Belt Railroad	108 52
30	Black Diamond Coal Mining Co.	514	Coal	1,402 33
30	Justinian Caire Co.	515	Window guards	50 00
31	H. R. Rood & Co.	516	Piles	849 92
31	Frank Greg.	517	Sawdust	5 00
31	Newsom & McNeil.	518	Store house bet. Slips 5 and 6	1,247 00
Feb. 6	Hyde Construction Co.	519	Repairs, Second Street slip	627 55
6	W. A. Mitchell & Co.	520	Rebate of rent	62 50
7	U. S. Laundry Ass'n.	521	Washing	12 95
7	H. R. Rood & Co.	522	Coating piles	894 40
7	Newsom & McNeil.	523	Shed on Dolphin bet. Slips 6-7	98 00
7	Hyde Construction Co.	524	Repairing Berry Street	2,863 13
7	Hyde Construction Co.	525	Repairs, Second Street Slip	2,048 35
7	Hyde Construction Co.	526	Service of scow driver	75 00
7	Mutual Electric Light Co.	527	Lights	1,743 21
7	James H. O'Brien.	528	Paving seawall lots	379 73
7	James Mathews.	529	Washing for fire house	3 50
8	City Street Imp. Co.	530	Piles	174 58
11	T. H. McConnell.	531	Care of clocks	15 00
12	Columbia Machine Wks.	532	Repairs, Dredgers 1-2	3 00
12	Spring Valley Water Works	533	Water	229 20
12	Thomas Day Co.	534	Chandeliers	71 45
12	Marshutz & Cantrell.	535	Repairs, Dredger No. 2.	129 45
12	The Harry Unna Co.	536	Bags	10 00
12	Main Street Iron Works.	537	Repairs, tug "Gov. Irwin"	37 12
12	Guide Publishing Co.	538	Guides	10 50
12	William Wolff & Co.	539	Cement	62 50
12	Chas. C. Moore & Co.	540	Repairs to boiler	5 28
12	Cal. Artistic Metal and Wire Co.	541	Folding gates	127 60
12	Market St. Ry. Co.	542	Girder rails	164 80
12	F. Lester & Co.	543	Rail braces, etc.	335 56
12	The Crandall Pack'g Co.	544	Packing	6 45
12	Commercial Pub. Co.	545	Advertising	24 75
12	James A. McMahon.	546	Repairing Broadway No. 1 and Fishermen's wharves	250 00
12	Gray Bros.	547	Fishermen's breakwater	218 18
13	Payne's Bolt Works.	548	Bolts	23 87
13	J. C. Winans.	549	Gasket	13 68
13	Murray Bros.	550	Repairs, pile drivers	16 50
13	Wm. J. Brady.	551	Repairing locomotive, Belt Railroad	539 74
13	Geo. H. Fuller Desk Co.	552	Postoffice furniture	292 35
13	Arctic Oil Works.	553	Oil	26 90
13	M. Greenberg's Sons.	554	Repairs, Dredger No. 1	7 00
13	W. T. Garratt & Co.	555	Repairs	6 68
13	Cunningham, Curtiss & Welch	556	Toilet paper	10 00
13	Levi Strauss & Co.	557	Towels	9 00
13	H. S. Crocker Co.	558	Stationery	48 80
14	Gorham Rubber Co.	559	Packing	12 90
14	The Pacific Coast Co.	560	Coal	870 00
14	L. Feldmann & Co.	561	Brushes, brooms, etc.	45 15
14	S. F. & S. J. Valley Ry. Co.	562	Rental of engine	437 50
15	Industrial Home for the Adult Blind	563	Brooms	22 80
15	Merchants' Ex. Ass'n.	564	Reporting	25 00
15	James Byrne, Jr.	565	Petty cash expenses	56 83

EXHIBIT F—Continued.

DISBURSEMENTS, 1900-1901—Continued.

Date.	Order.	No.	On Account of.	Amount.
1901				
Feb. 16	Thos. B. Eagen	566	Laying track, Belt Railroad	\$1,086 75
16	Thos. B. Eagen	567	Labor, Belt Railroad	33 00
18	Flinn & Treacy	568	Paving at Fishermen's Wharf	1,116 40
19	E. M. Graney	569	Shoeing horses	5 00
20	Str. "Iaqua," Dolbeer & Carson, agents	570	Rebate of dockage	24 75
20	Board of State Harbor Commissioners	571	Payrolls	10,717 75
20	Geo. E. Dow Pumping Engine Co.	572	Repairs, tug "Gov. Markham"	3 40
21	Rowlands & Laughton	573	Repairs, Dredgers Nos. 1 and 2	37 80
21	Joshua Hendy Machine Works	574	Repairing locomotive, Belt R. R.	1,785 01
25	John W. Murphy	575	Keeping horses	40 00
25	Garlock Packing Co.	576	Packing	3 66
26	Board of State Harbor Commissioners	577	Payrolls	9,643 90
26	Str. "Alice Blanchard," Swayne & Hoyt, agts.	578	Rebate of dockage	35 00
27	Baker & Hamilton	579	Hardware	441 15
28	Pacific States Tel. & Tel. Co.	580	Telephones	143 30
28	S. E. Slade Lumber Co.	581	Lumber	2,692 00
28	Jardine Machine Works	582	Gratings for sewer	16 75
28	San Francisco Construction Co.	583	Sewer	410 94
28	H. R. Rood & Co.	584	Preserving piles	652 80
Mar. 6	Pacific Pine Co.	585	Piles	2,163 11
7	Frank E. Smith & Co.	586	Storage battery	125 00
7	Black Diamond Coal Mining Co.	587	Coal	1,271 18
7	Vulcan Iron Works	588	Gratings, etc.	194 00
7	Str. "Iaqua," Dolbeer & Carson, agents	589	Rebate of dockage, str. "Iaqua"	7 50
11	G. W. McNear	590	Rebate of tolls, "Manx King"	47 90
12	Sydney L. Plant	591	Gaskets	7 50
12	Thomas Day Co.	592	Deck light	6 00
12	Judson Mfg. Co.	593	Stands and castings	20 81
12	Dunham, Carrigan & Hayden Co.	594	Rings and links	10 05
12	Leonard & Ellis	595	Oil	33 80
12	Gorham Rubber Packing Co.	596	Hose and packing	26 77
12	S. F. Weeks Co.	597	Signals	17 50
12	City Front Stables	598	Boarding horse	20 00
12	J. T. Wilson	599	Floor powder and brushes	49 00
12	Western Iron Works	600	Iron beams and girders	304 12
12	Frank Greg	601	Sawdust	5 00
12	The Economy Mfg. Co.	602	Repairing fan	5 50
13	Boesch Lamp Co.	603	Headlight, etc.	41 00
13	Payne's Bolt Works	604	Bolts	161 07
13	Spoiled	605	.....	.....
13	Arctic Oil Works	606	Oil	103 32
13	J. J. McKinnon	607	Rebate of tolls	7 66
13	Wm. J. Brady	608	Repairing boiler, pile-driver	6 80
13	Simpson Lumber Co.	609	Rebate of rent	31 25
14	Hyde Construction Co.	610	Repairing Lombard Street	1,177 74
14	Hyde Construction Co.	611	Use of scow driver	157 80
14	Robert Wakefield	612	Repairing bulkhead, Section 3	545 86
14	Robert Wakefield	613	Driving piles, Section 3	60 00
14	Robert Wakefield	614	Piles	28 70
14	Robert Wakefield	615	Constructing Car Ferry Slips 1-2	3,017 27
14	H. R. Rood & Co.	616	Coating piles	1,285 20
14	The Pacific Coast Co.	617	Coal	681 58
14	City Street Imp. Co.	618	Repairing Steuart Street	4,432 04
14	F. Lester & Co.	619	Rail braces	52 21

EXHIBIT F—Continued.

DISBURSEMENTS, 1900-1901—Continued.

Date.	Order.	No.	On Account of.	Amount.
1901				
Mar. 14	Mutual Electric Light Co.	620	Lights	\$1,562 52
14	James Mathews	621	Washing for fire house	3 50
15	L. Feldmann & Co.	622	Dusters, etc.	22 20
15	Merchants' Exchange Ass'n	623	Reporting	25 00
15	Rowlands & Laughton	624	Repairs, etc.	270 34
15	Commercial Publishing Co.	625	Advertising	53 60
15	Spring Valley Water Works	626	Water	258 35
15	S. F. Timber Preserving Co.	627	Creosoting piles	2,942 03
15	S. F. Timber Preserving Co.	628	Creosoting piles	7,882 23
15	Ralston Iron Works	629	Plates for baggage room	23 00
15	James Young	630	Millwork	110 65
15	Baker & Hamilton	631	Hardware	770 71
16	Gray Bros.	632	Breakwater, Fishermen's Wharf	561 43
16	Gray Bros.	633	Rock for breakwater	206 68
16	Gray Bros.	634	Rock	404 22
16	Arctic Oil Works	635	Oil	38 29
16	Dunham, Carrigan & Hayden Co.	636	Hardware	117 88
16	G. M. Josselyn & Co.	637	Chain, Dredger No. 2	101 55
16	H. S. Crocker Co.	638	Stationery	97 08
16	Frank Greg	639	Sawdust	5 00
16	Guide Publishing Co.	640	Guides	10 50
16	Cunningham, Curtiss & Welch	641	Toilet paper	10 00
16	Pacific Pine Co.	642	Piles	176 40
16	Bancroft-Whitney Co.	643	Law books	23 00
16	Gorham Rubber Co.	644	Packing	13 18
16	Columbia Machine W'ks	645	Repairs, Dredger No. 2	16 00
16	S. F. & San Mateo Ry. Co.	646	Fish plates	26 50
16	City Front Stables	647	Boarding horse	20 00
18	Langley & Michaels Co.	648	Disinfectant	11 88
18	Tubbs Cordage Co.	649	Rope	136 74
18	E. M. Graney	650	Shoeing horse	5 00
18	J. D. Spreckels & Bros. Co.	651	Cement	98 00
18	Geo. H. Fuller Desk Co.	652	Chairs and desk	53 55
19	S. F. & S. J. Valley Ry. Co.	653	Repairs to engine, Belt Railroad	239 02
19	W. P. Fuller & Co.	654	Cotton waste	7 25
20	Board of State Harbor Commissioners	655	Payrolls	10,487 90
21	James A. McMahon	656	Driving piles at Mission 1	320 00
21	City Street Imp. Co.	657	Pulling piles	80 00
22	Arctic Oil Works	658	Oil	8 00
22	Thomas Day Co.	659	Electric fixtures	40 50
22	Pacific States Tel. & Tel. Co.	660	Telephones	148 85
22	Pacific Electric Corporation	661	Motor	154 00
22	Newsom & McNeil	662	Freight shed on Seawall lot 5	3,071 25
22	P. F. Dundon's S. F. Iron Works	663	Repairs to tugs and dredgers	115 47
22	S. F. & S. J. Valley Ry. Co.	664	Freight on engine	806 77
22	Henry H. Gorter	665	Monitor battery on "Gov. Markham"	949 00
22	E. K. Wood Lumber Co.	666	Rebate of dockage	75 90
23	Joshua Hendy Machine Works	667	Repairs, Belt Railroad	47 68
23	Fred Miller	668	Shed on Harrison Street Wharf	4,405 12

EXHIBIT F—Continued.

DISBURSEMENTS, 1900-1901—Continued.

Date.	Order.	No.	On Account of.	Amount.
1901				
Mar. 23	L. Feldmann & Co.	669	Sponges, brooms, etc	\$22 50
25	Tug "Annie" (C. Fitch- north, master)	670	Towing scows	15 00
25	Board of State Harbor Commissioners	671	Payrolls	9,027 25
26	C. G. Clinch & Co.	672	Oil	14 77
26	Black Diamond Coal Mining Co.	673	Coal	1,192 40
26	Chas. C. Moore & Co.	674	Valves	18 15
26	W. S. Ray Mfg. Co.	675	Stove, etc., for Fishermen's Wharf ..	11 55
26	Pacific Electric Cor- poration	676	Repairing pumps	10 00
26	Santa Fé Pacific Rail- road Co.	677	Railroad engine	7,690 80
26	Gray Bros.	678	Rock for Belt Railroad	186 00
26	W. T. Garratt & Co.	679	Repairs to tugs	14 95
27	James H. O'Brien	680	Paving East Street, etc.	1,308 94
28	Healy, Tibbitts & Co.	681	Fishermen's Wharf	2,383 00
Apr. 4	Robert Wakefield	682	Car Ferry Slips 1 and 2	3,248 06
4	Robert Wakefield	683	Constructing Pier 19, Union No. 2 ..	2,227 02
4	Julian B. Harries	684	Experting books	37 50
4	Wheaton & Kalloch	685	Legal expense fees, Holmes vs. Kilburn	1,000 00
5	Hannah Bros.	686	Improvements on dolphin bet. slips 4 and 5	3,636 75
5	W. & J. Sloane & Co.	687	Carpets	135 60
6	Newsom & McNeil	688	Constructing freight shed, Santa Fé Railway Co.	1,316 25
8	Albert Raymond, and Albert Raymond, as- signee of Andrew Wilkie, Jr., and the lien-holders	689	Postoffice building	7,907 50
8	Stephen Potter	690	Dictation of letters and reporting ..	25 00
8	James Byrne, Jr.	691	Petty cash expenses	52 40
8	Hyde Construction Co.	692	Repairs, Main Street	590 00
8	Hyde Construction Co.	693	Repairs, Mission No. 2	1,373 68
9	E. K. Wood Lumber Co.	694	Rebate of dockage, sch. "Letitia" ..	34 00
9	J. O'Shea	695	Cobbles for Santa Fé yards	874 35
11	Merchants' Exchange Association	696	Reporting	25 00
11	U. S. Laundry Ass'n	697	Washing	11 45
11	Val Franz	698	Fixing offices in Union Depot	219 00
11	Val Franz	699	Alteration to roundhouse	2,108 00
11	Val Franz	700	Inclosing northside Pier 10	749 00
11	F. H. McConnell	701	Care of clocks	30 00
12	Nelson & Nunan	702	Two smokestacks, Belt Railroad ..	100 00
12	James Mathews	703	Washing for fire house	3 50
12	Hannah Bros.	704	Improvements on dolphin bet. Slips 4 and 5	1,350 00
12	National Bank of D. O. Mills & Co.	705	Exchange	152 34
15	Gray Bros.	706	Constructing breakwater	3,916 39
15	Gray Bros.	707	Rock for roadway	184 53
15	James H. O'Brien	708	Paving East Street, etc.	1,203 28
18	Billier & Qualman	709	Improvements on Pier 7	1,712 00
19	J. W. Murphy	710	Keeping horses	82 00
19	P. F. Dundon's S. F. Iron Works	711	Repairs, tug "Gov. Irwin"	171 46
22	Jos. F. Forderer	712	Pipe	40 80
25	S. F. Timber Preserving Co.	713	Creosoting piles	2,627 41
25	City Street Imp. Co.	714	Constructing Pier 20	3,969 50
25	Val Franz	715	Fitting up offices, Union Depot ..	269 00
26	Newsom & McNeil	716	Shed on Pier 20	5,764 50
27	Capital Hotel (D. Lay- don)	717	Hotel expenses	34 90

EXHIBIT F—*Continued.*DISBURSEMENTS, 1900-1901—*Continued.*

Date.	Order.	No.	On Account of.	Amount.
1901				
Apr. 27	Guide Publishing Co.	718	Guides	\$10 50
29	Fred Miller	719	Shed on Pier 16.	777 38
30	Fred Miller	720	News stand, Santa Fé waiting room	283 00
30	H. R. Rood & Co.	721	Preserving piles, Slips 1 and 2	1,803 00
May 1	Board of State Harbor Commissioners	722	Payroll	19,600 20
4	Flinn & Treacy	723	Paving East Street, near Vallejo	3,760 62
4	City Street Imp. Co.	724	Addition to Steuart Street	2,461 35
4	H. R. Rood & Co.	725	Coating piles	1,083 00
4	T. J. Moynihan	726	Repairs on bucket, Dredger No. 1.	375 00
7	S. F. & San Mateo Ry. Co.	727	Power	50 00
7	Union Lumber Co.	728	Rebate of tolls	32 10
7	Swan, the Painter	729	Signs	54 10
7	Joshua Hendy Machine Works	730	Repairs Belt Railroad	163 71
9	Newsom & McNeil	731	Freight shed on Seawall lot No. 5	1,462 50
9	Newsom & McNeil	732	Shed on Steuart Street	4,035 15
9	Robert Wakefield	733	Repairing "Section 3," Seawall	2,382 86
9	Hannah Bros.	734	Improvements on dolphin bet. Slips 4 and 5	1,212 25
9	Robert Wakefield	735	Car ferry slips	3,953 97
9	Joshua Hendy Machine Works	736	Rail guards	34 33
9	George G. Rundie	737	Dredger, poles, etc.	102 47
9	H. M. Newhall	738	Cement	92 81
9	Vermont Marble Co.	739	Cutting doorways	90 00
9	Mutual Electric Light Co.	740	Lights	3,151 68
9	John W. Murphy	741	Keeping horses	42 00
24	Hyde Construction Co.	742	Repairing dolphin bet. Slips 3 and 4	1,525 00
24	Hyde Construction Co.	743	Repiling and repairing Berry St. Wharf	4,356 18
24	James Byrne, Jr.	744	Petty cash expenses	99 79
25	Harry M. Nagle	745	Brooms	32 00
25	The Guide Publishing Co.	746	Guides	10 50
27	Str. "South Coast" and Albion Lumber Co.	747	Rebate of dockage	12 60
27	Arctic Oil Works	748	Oil	112 19
27	Brooks-Follis Electric Corporation	749	Electric goods	20 30
27	Bauer Lamp and Reflector Co.	750	Searchlight	12 00
27	J. Browell	751	Chimneys	52 25
27	Wm. Bateman	752	Railing for telegraph office	50 00
27	Bancroft-Whitney Co.	753	Reports, etc.	9 00
27	Buchanan Bros.	754	U. S. metal polish	7 50
27	I. Willard Beam	755	Wire rope	29 30
27	Boston Woven Hose and Rubber Co.	756	Hose	40 14
27	Wm. J. Brady	757	Repairs to boiler, "Gov. Markham," and railroad	103 12
27	G. F. Buswell	758	Frictions	50 00
27	T. J. Crowley	759	Shoeing horses	10 00
27	Callahan Paint Co.	760	Painting "Gov. Irwin" and "Gov. Markham"	111 70
27	City Front Stables	761	Keeping horses	48 50
27	Cunningham, Curtiss & Welch	762	Toilet paper	10 00
27	H. S. Crocker Co.	763	Stationery	135 31
27	Commercial Pub. Co.	764	Advertising	156 15
27	Chas. F. Doe & Co.	765	Lumber	395 04
27	Thos. Day Co.	766	Brackets	35 20
27	Dunham, Carrigan & Hayden Co.	767	Hardware	254 47

EXHIBIT F—*Continued.*DISBURSEMENTS, 1900-1901—*Continued.*

Date.	Order.	No.	On Account of.	Amount.
1901				
May 27	Geo. E. Dow Pumping Engine Co.	768	Repairing pumps	\$11 15
27	Fulton Engineering and Shipbuilding Works ..	769	Towing bitt	91 15
27	L. Feldmann & Co.	770	Dusters, etc.	25 80
27	Geo. H. Fuller Desk Co.	771	Office furniture	150 43
27	The Gibson Soap Co.	772	Soap polish	33 00
27	Goodyear Rubber Co.	773	Hose	11 50
27	Frank Greg	774	Sawdust	5 00
27	Spoiled	775		
27	Gorham Rubber Co.	776	Hose and packing	50 50
27	W. T. Garratt & Co.	777	Repairs	3 37
27	H. T. Holmes Lime Co.	778	Lime, etc.	13 55
27	C. J. Hendry's Son & Co.	779	Chandlery	260 33
27	C. J. Hendry's Son & Co.	780	Chandlery	124 17
27	Holbrook, Merrill & Stetson	781	Hardware	79 68
27	Indianapolis Furniture Co.	782	Hatrack	33 75
27	Spoiled	783		
27	Judson Mfg. Co.	784	Stands and rail chain	141 60
27	J. C. Johnson & Co.	785	Harness	45 00
27	James E. Kidd	786	Metal polish	12 00
27	Merchants' Exchange Association	787	Reporting	25 00
27	H. A. Moore	788	Railroad settees	66 50
27	James Mathews	789	Washing for fire house	3 50
27	O'Brien & Son	790	Repairing buggy	55 00
27	Olsen & Cook	791	Hardware	18 25
27	The Pacific Coast Co.	792	Coal	813 72
27	Payne's Bolt Works	793	Bolts	67 11
27	W. S. Ray Mfg. Co.	794	Stove and fixtures	12 10
27	Rowlands & Laughton ..	795	Repairs	488 30
27	Scott & Magner	796	Oats	10 11
27	San Francisco Towel Co.	797	Towel service	7 00
27	S. F. Gas & Electric Co.	798	Wiring Second Street slip	10 00
27	S. F. Dry Dock Co.	799	Docking tugs	62 60
27	Levi Strauss & Co.	800	Towels	9 00
27	Scott & Van Arsdale	801	Lumber	176 25
27	Shipowners and Merchants' Tug Boat Co.	802	Towing U. S. steamer "Gedney" ..	10 00
27	Taylor & Brickley	803	Whitewashing	554 00
27	U. S. Laundry Ass'n	804	Washing awning for tug "Gov. Markham"	5 00
27	Vulcan Iron Works	805	Plates, etc.	197 54
27	Union Lumber Co.	806	Rebate of dockage	8 40
27	West Coast Wire and Iron Works	807	Guards	21 00
27	Wells, Fargo & Co.	808	Rebate of rent	37 50
27	Western Iron Works	809	Ladders and braces	100 00
27	J. C. Winans	810	Packing	12 38
29	E. M. Graney	811	Shoeing horses	10 00
June 4	Board of State Harbor Commissioners	812	Payrolls	20,196 60
5	Newsom & McNeil	813	Shed on Steuart Street	1,589 73
5	Fred Miller	814	Shed on Harrison Street	1,727 50
5	City Street Imp. Co.	815	Addition to Steuart Street	5,171 08
5	H. R. Rood & Co.	816	Preserving piles	1,390 40
5	Hyde Construction Co.	817	Repairing bulkhead bet. Piers Nos. 15 and 17	1,533 45
5	Black Diamond Coal Mining Co.	818	Coal	1,241 63
5	S. E. Slade Lumber Co.	819	Lumber	2,113 93
12	Fireman's Fund Ins. Co.	820	Insurance	825 00
12	Liverpool and London and Globe Ins. Co.	821	Insurance	550 00

EXHIBIT F—*Continued.*DISBURSEMENTS, 1900-1901—*Continued.*

Date.	Order.	No.	On Account of.	Amount.
1901				
Jun. 12	Phoenix Ins. Co. of Hartford	822	Insurance	\$412 50
12	Atlas Assurance Co.	823	Insurance	275 00
12	Manchester Assurance Co.	824	Insurance	275 00
12	Milwaukee Mechanics' Ins. Co.	825	Insurance	275 00
12	Norwich Union Fire Ins. Society	826	Insurance	275 00
12	London and Lancashire Fire Ins. Co.	827	Insurance	275 00
12	Thuringia Insurance Co.	828	Insurance	275 00
12	Royal Insurance Co.	829	Insurance	275 00
12	Sun Insurance Office	830	Insurance	275 00
12	Aetna Insurance Co.	831	Insurance	275 00
12	Transatlantic Fire Ins. Co.	832	Insurance	137 56
12	German-American Ins. Co.	833	Insurance	137 50
12	Aachen and Munich Fire Ins. Co.	834	Insurance	137 50
12	North German Fire Ins. Co.	835	Insurance	137 50
12	Hartford Fire Ins. Co.	836	Insurance	137 50
12	Svea Insurance Co.	837	Insurance	137 50
12	New Zealand Ins. Co.	838	Insurance	137 50
12	Phoenix Ins. Co. of London	839	Insurance	137 50
12	Magdeburg Fire Ins. Co.	840	Insurance	137 50
12	S. F. Timber Preserving Co.	841	Creosoting piles	7,217 32
12	Robert Wakefield	842	Constructing Pier No. 19	3,053 58
12	Robert Wakefield	843	Constructing Car Ferry Slips 1, 2	2,189 85
12	Paraffine Paint Co.	844	Coating piles	2,904 52
12	Pacific Coast Dredging and Reclamation Co.	845	Dredging	1,900 50
12	Mutual Electric Light Co.	846	Lights	1,277 33
24	California Northwestern Ry. Co.	847	Steel rails	2,766 65
Total amount drawn from San Francisco Harbor Improvement Fund for fiscal year 1900-1901				\$689,443 51
Drafts issued and returned for changes and new drafts issued in lieu:				
1900				
Aug. 31	H. R. Rood & Co.	81	Piles	\$1,006 46
Sept. 29	Kuss & Storz	77	Painting Postoffice	43 00
29	National Bank of D. O. Mills & Co.	85	Exchange	98 95
29	S. E. Slade Lumber Co.	98	Lumber	5,225 62
Oct. 31	Bay City Manufacturing and Rubber Co.	125	Packing	3 65
31	S. E. Slade Lumber Co.	167	Lumber	5,225 61
31	Bay City Manufacturing and Rubber Co.	174	Packing	20 14
				11,623 43
Net amount drawn from San Francisco Harbor Improvement Fund for fiscal year 1900-1901				\$677,820 08

EXHIBIT F—Continued.

DISBURSEMENTS, 1901-1902—Continued.

Date.	Order.	No.	On Account of.	Amount.
1901				
July 2	Board of State Harbor Commissioners	848	Payrolls	\$18,980 50
5	Hannah Bros.	849	Office, Harrison Street Wharf	274 00
5	Flinn & Treacy	850	Paving East Street	1,253 54
5	City Street Imp. Co.	851	Repairing and repiling Powell Street Wharf	4,903 13
5	Newsom & McNeil	852	Shed on Pier 20	4,117 62
5	Hyde Construction Co.	853	Repiling and repairing Berry Street Wharf	2,406 44
5	Thos. B. Eagen	854	Laying track, Belt Railroad	567 62
5	Mutual Electric Light Co.	855	Lights	1,154 81
5	Black Diamond Coal Mining Co.	856	Coal	1,235 97
5	Standard Electrical Construction Co.	857	Lamps and heaters	63 50
5	West Coast Wire and Iron Works.	858	Gates	159 39
5	Frank H. La Faille	859	Painting tugs "Gov. Markham" and "Gov. Irwin"	341 75
5	S. F. Timber Preserving Co.	860	Creosoting	5,063 29
8	H. R. Rood & Co.	861	Preserving piles	1,191 20
10	Julian B. Harries	862	Experting books	44 50
10	Robert Wakefield	863	Piles	1,998 59
11	McCann, Beleher & Allen	864	Office furniture	206 65
18	Darby Laydon	865	Extra work, Washington St. Wharf	710 86
18	James Byrne, Jr.	866	Petty cash expenses	59 85
19	Thos. B. Eagen	867	Belt Railroad, construction	578 50
22	Soule & Lent	868	Lumber	420 50
24	Paraffine Paint Co.	869	Coating piles	968 18
24	S. F. Timber Preserving Co.	870	Creosoting piles	2,405 78
24	S. F. Timber Preserving Co.	871	Creosoting piles	1,687 76
24	West Coast Wire and Iron Works.	872	Wirework partition	400 00
24	Robert Wakefield	873	Car Ferry Slips 1 and 2	2,189 85
24	Healy, Tibbitts & Co.	874	Repairing Ferry Slips 1, 5, 6, 7	1,766 69
24	R. A. Crothers	875	Advertising in the "Bulletin"	168 00
24	S. F. "Chronicle"	876	Advertising	225 00
24	J. D. Spreckels	877	Advertising in S. F. "Call"	115 20
24	"Examiner"	878	Advertising	273 00
24	"Evening Post"	879	Advertising	170 00
Aug. 3	Board of State Harbor Commissioners	880	Payrolls	20,517 40
6	Abrahamson Ventilating Co.	881	Ventilators	18 00
6	Arctic Oil Works	882	Oils, etc.	146 78
6	Boesch Lamp Co.	883	Repairing headlight, etc.	30 45
6	Black Diamond Coal Mining Co.	884	Coal	2,677 53
6	Bancroft-Whitney Co.	885	U. S. Reports	6 50
6	Buchanan Bros.	886	Rags	10 00
6	G. F. Buswell	887	Frictions	25 00
6	Wm. J. Brady	888	Repairs on tugs	22 21
6	Boston Woven Hose and Rubber Co.	889	Hose, etc.	8 55
6	Baker & Hamilton	890	Hardware	2,787 81
6	H. S. Crocker Co.	891	Stationery	161 32
6	Commercial Pub. Co.	892	Advertising	110 00
6	Cunningham, Curtiss & Welch	893	Toilet paper	20 00
6	Climax Boiler Compound Co.	894	Boiler compound	15 00

EXHIBIT F—Continued.

DISBURSEMENTS, 1901-1902—Continued.

Date.	Order.	No.	On Account of.	Amount.
1901				
Aug. 6	Callahan Paint Co	895	Painting tug "Gov. Perkins"	\$29 90
6	Columbia Machine Wks.	896	Repairs tug "Gov. Irwin"	7 20
6	City Front Stables	897	Keeping horses	40 00
6	Cal. Artistic Metal and Wire Co.	898	Wire screen	139 25
6	C. G. Clinch & Co.	899	Paints, oil, etc.	998 18
6	Dunham, Carrigan & Hayden Co.	900	Hardware	239 37
6	C. F. Doe & Co.	901	Lumber	1,203 06
6	Geo. E. Dow Pumping Engine Co.	902	Repairs on tugs	15 20
6	Thomas Day Co.	903	Electric brackets	64 90
6	Geo. H. Fuller Desk Co.	904	Desks, etc.	63 48
6	L. Feldmann & Co.	905	Brushes, brooms, etc.	70 28
6	The Gibson Soap Co.	906	Soap polish	18 00
6	Golden Eagle Hotel	907	Hotel bill	39 00
6	Gray Bros.	908	Rock, etc.	22 40
6	E. M. Graney	909	Shoeing horses	5 00
6	The Guide Publishing Co.	910	Guides	21 00
6	Gorham Rubber Co.	911	Hose and packing	51 17
6	Frank Greg	912	Sawdust	10 00
6	Goodyear Rubber Co.	913	Hose, etc.	33 86
6	W. T. Garratt & Co.	914	Repairs on tugs	6 94
6	C. J. Hendry's Son & Co.	915	Chandlery	235 07
6	Michael Hodge	916	Drayage	12 00
6	Joshua Hendy Machine Works	917	Repairs on locomotive	317 16
6	Indianapolis Furniture Co.	918	Furniture	54 00
6	Judson Mfg. Co.	919	Switches, etc.	153 78
6	G. M. Josselyn & Co.	920	Chain	71 22
6	Leonard & Ellis	921	Oil	67 61
6	Langley & Michaels Co.	922	Methyl spirits	8 00
6	John W. Murphy	923	Keeping horse	80 00
6	C. C. Moore & Co.	924	Pump rod	20 00
6	F. H. McConnell	925	Care of clock	45 00
6	Merchants' Exchange Association	926	Reporting	50 00
6	Market Street R. R. Co.	927	Girder rails	1,286 94
6	H. M. Newhall & Co.	928	Cement	292 60
6	H. M. Nagle	929	Brooms	8 00
6	O'Brien & Son	930	Repairing buggy	9 95
6	Olsen & Cook	931	Anchor light, etc.	9 55
6	Pacific Pine Co.	932	Piles	2,129 85
6	The Pacific Coast Co.	933	Coal	240 25
6	L. Peterson	934	Model of pier	28 00
6	Payne's Bolt Works	935	Bolts	42 95
6	Pacific States Tel. & Tel. Co.	936	Telephones	453 25
6	H. R. Rood & Co.	937	Coating piles	1,708 00
6	George G. Rundle	938	Repairs "Gov. Markham"	190 66
6	Rowlands & Laughton	939	Repairs	189 19
6	S. E. Slade Lumber Co.	940	Lumber	11,759 42
6	Studebaker Bros. Mfg. Co.	941	Repairing sprinklers	279 40
6	Levi Strauss & Co.	942	Towel crash	6 25
6	Sternfeld Leather Co.	943	Toilet soap	15 00
6	W. & J. Sloane & Co.	944	Carpets	201 87
6	Swan, the Painter	945	Signs	61 00
6	J. D. Spreckels & Bros. Co.	946	Cement	210 00
6	Sudden & Christenson	947	Lumber	2,219 50
6	Spring Valley Water Works	948	Water	991 34
6	Geo. H. Tay Co.	949	Hardware	108 34

EXHIBIT F—Continued.

DISBURSEMENTS, 1901-1902—Continued.

Date.	Order.	No.	On Account of.	Amount.
1901				
Aug. 6	U. S. Laundry Ass'n....	950	Washing	\$12 45
6	J. C. Winans	951	Packing	63 83
6	L. E. White Lumber Co.	952	Railroad ties	319 96
8	Darby Laydon	953	Addition to Washington and Mission No. 1 wharves	3,745 00
8	Fireman's Fund Ins. Co.	954	Insurance	825 00
8	Liverpool and London and Globe Ins. Co.	955	Insurance	550 00
8	Phoenix Insurance Co. of Hartford	956	Insurance	412 50
8	Manchester Ass'nce Co.	957	Insurance	275 00
8	The Atlas Assurance Co.	958	Insurance	275 00
8	Milwaukee Mechanics' Insurance Co.	959	Insurance	275 00
8	Norwich Union Fire Insurance Co.	960	Insurance	275 00
8	London and Lancashire Fire Insurance Co.	961	Insurance	275 00
8	Thuringia Ins. Co.	962	Insurance	275 00
8	Royal Insurance Co.	963	Insurance	275 00
8	Sun Insurance Office	964	Insurance	275 00
8	Ætna Insurance Co.	965	Insurance	275 00
8	Transatlantic Fire Ins. Co.	966	Insurance	137 50
8	German-Am. Ins. Co.	967	Insurance	137 50
8	Aachen and Munich Fire Insurance Co.	968	Insurance	137 50
8	North German Fire Ins. Co.	969	Insurance	137 50
8	Hartford Fire Ins. Co.	970	Insurance	137 50
8	Svea Insurance Co.	971	Insurance	137 50
8	New Zealand Ins. Co.	972	Insurance	137 50
8	Phoenix Insurance Co. of London	973	Insurance	137 50
8	Magdeburg Fire Ins. Co.	974	Insurance	137 50
9	City Street Imp. Co.	975	Repairing Powell St. and Sec. "A"	1,634 37
9	Mutual Elec. Light Co.	976	Light	1,302 29
14	R. J. Murphy	977	Services as engineer, tug "Gov. Irwin"	75 50
21	R. E. Revalk & Co.	978	Typewriter	74 50
31	S. F. Timber Pres'v'g Co.	979	Creosoting piles for Slips 1 and 2	5,280 28
31	S. F. Timber Pres'v'g Co.	980	Creosoting piles for Slips 1 and 2	1,760 09
31	Dundon Bridge and Construction Co.	981	Piles	1,368 50
31	S. F. Timber Pres'v'g Co.	982	Creosoting piles	1,614 06
31	State Board of Harbor Commissioners	983	Payrolls	18,746 90
Sept. 4	Robert Wakefield	984	Piles	2,476 89
5	Black Diamond Coal Mining Co.	985	Coal	992 55
5	Mutual Elec. Light Co.	986	Lights	1,270 71
12	Arctic Oil Works	987	Oil	73 72
12	Buchanan Bros.	988	Polish	8 75
12	Boesch Lamp Co.	989	Repairing headlight	6 95
12	Bancroft-Whitney Co.	990	Law books	17 50
12	Boston Woven Hose and Rubber Co.	991	Hose	64 98
12	Wm. J. Brady	992	Repairs on tugs	13 15
12	City Front Stables	993	Keeping horse	20 00
12	Commercial Publishing Co.	994	Advertising	27 50
12	T. J. Crowley	995	Shoeing horses	10 00
12	Cunningham, Curtiss & Welch	996	Toilet paper	10 00
12	H. S. Crocker Co.	997	Stationery	121 45

EXHIBIT F—Continued.

DISBURSEMENTS, 1901-1902—Continued.

Date.	Order.	No.	On Account of.	Amount.
1901				
Sept. 12	R. D. Chandler.....	998	Coal.....	\$107 30
12	Columbia Machine Wks.	999	Repairs, tug "Gov. Irwin".....	21 00
12	Geo. E. Dow Pumping Engine Co.....	1000	Repairing pump.....	4 97
12	Thomas Day Co.....	1001	Electric goods.....	6 75
12	Dunham, Carrigan & Hayden Co.....	1002	Hardware.....	107 09
12	Geo. H. Fuller Desk Co.....	1003	Chairs.....	17 28
12	L. Feldmann & Co.....	1004	Handles, etc.....	3 35
12	E. M. Graney.....	1005	Shoeing horses.....	10 00
12	The Guide Pub. Co.....	1006	Guides.....	21 00
12	Gorham Rubber Co.....	1007	Hose.....	7 47
12	Gibson Soap Co.....	1008	Soap polish.....	18 00
12	W. T. Garratt & Co.....	1009	Nipples.....	5 40
12	Frank Greg.....	1010	Sawdust.....	5 00
12	Joshua Hendy Machine Works.....	1011	Repairs engine, Belt Railroad.....	22 46
12	C. J. Hendry's Son & Co.	1012	Chandlery.....	71 27
12	Holbrook, Merrill & Stetson.....	1013	Tin and solder.....	29 00
12	H. Huddleston & Co.....	1014	Cuspidors.....	8 00
12	Judson Mfg. Co.....	1015	Frogs for Belt Railroad.....	24 85
12	Langley & Michaels Co.....	1016	Disinfectant.....	11 11
12	J. Metcalfe.....	1017	Lloyds register.....	24 00
12	Murray Bros.....	1018	Repairs, Belt Railroad.....	147 50
12	Merchants' Exchange Association.....	1019	Reporting.....	50 00
12	F. H. McConnell.....	1020	Care of clocks.....	15 00
12	National Bank of D. O. Mills & Co.....	1021	Exchange.....	174 67
12	John W. Murphy.....	1022	Keeping horses.....	84 75
12	H. M. Nagle.....	1023	Brooms.....	8 00
12	Olsen & Cook.....	1024	Repairs on tugs.....	3 35
12	Spoiled.....	1025	.....	.....
12	H. R. Rood & Co.....	1026	Coating piles.....	1,219 60
12	Rowlands & Laughton.....	1027	Repairs, Dredgers Nos. 1 and 2.....	86 62
12	George G. Rundle.....	1028	Repairs, tug "Gov. Irwin".....	20 41
12	A. Ruegg.....	1029	Drilling holes in plates.....	25 36
12	S. E. Slade Lumber Co.....	1030	Lumber.....	3,548 63
12	Sternfeld Leather Co.....	1031	Soap canisters.....	18 00
12	S. F. Towel Co.....	1032	Towel service.....	7 00
12	J. C. Sala.....	1033	Repairing transit.....	65 00
12	Southern Pacific Co.....	1034	Coal.....	143 03
12	W. & J. Sloane & Co.....	1035	Carpets.....	262 39
12	Chas. F. Sloane.....	1036	Switch.....	15 12
12	Swan, the Painter.....	1037	Signs.....	14 00
12	Spring Valley Water Works.....	1038	Water.....	507 63
12	Geo. H. Tay & Co.....	1039	Plumbing supplies.....	25 75
12	Spoiled.....	1040	.....	.....
12	E. W. Tucker & Co.....	1041	Repairs, Belt Railroad.....	26 16
12	West Coast Furniture Co.....	1042	Desk for Postoffice.....	37 50
12	West Coast Wire and Iron Works.....	1043	Lock and repairing gate.....	7 65
12	L. & E. Emanuel (Inc.).....	1044	Postoffice furniture.....	1,800 00
12	U. S. Laundry Ass'n.....	1045	Laundry.....	17 65
12	Betts Spring Co.....	1046	Springs.....	147 25
12	L. & E. Emanuel (Inc.).....	1047	Court expenses, Emanuel vs. Board.....	17 00
17	Pacific States Tel. & Tel. Co.....	1048	Telephones.....	296 85
26	James Byrne, Jr.....	1049	Petty cash expenses.....	120 55
Oct. 4	Board of State Harbor Commissioners.....	1050	Payrolls.....	19,070 80

EXHIBIT F—Continued.

DISBURSEMENTS, 1901-1902—Continued.

Date.	Order.	No.	On Account of.	Amount.
1901				
Oct. 12	Wells, Fargo & Co.'s Bank	1051	In lieu of deferred payment, draft No. 1, for \$3,649.75, due Oct. 24, issued to Robert Wakefield for constructing Car Ferry Slips 1-2 and assigned to Wells, Fargo & Co.'s Bank	\$3,643 75
12	Wells, Fargo & Co.'s Bank	1052	In lieu of deferred payment, draft No. 2, for \$3,649.75, due Jan. 24, 1902, issued to Robert Wakefield for constructing Car Ferry Slips 1-2 and assigned to Wells, Fargo & Co.'s Bank	3,597 76
12	Robert Wakefield	1053	Constructing Pier 19	1,747 28
12	Mutual Electric Light Co.	1054	Lights	1,326 20
12	Wm. H. Smith & Co.	1055	Repairing apron, foot of Main St.	1,276 00
12	Robert Wakefield	1056	Extra work on Car Ferry Slips 1-2	506 40
12	Robert Wakefield	1057	Extra work on Pier 19	749 12
14	Arctic Oil Works	1058	Oil	38 50
14	Baker & Hamilton	1059	Hardware	2,612 94
14	Black Diamond Coal Mining Co.	1060	Coal	762 80
14	Bancroft-Whitney Co.	1061	Law books	27 00
14	Wm. J. Brady	1062	Repairs on tug	57 00
14	Betts Spring Co.	1063	Locomotive spring	6 00
14	Columbia Machine Wks.	1064	Repairs on tug "Gov. Irwin"	52 30
14	City Front Stables	1065	Keeping horse	20 00
14	R. D. Chandler	1066	Coal	216 45
14	Cunningham, Curtiss & Welch	1067	Toilet paper	10 00
14	H. S. Crocker Co.	1068	Books, etc.	211 40
14	Geo. E. Dow Pumping Engine Co.	1069	Piston rod	7 25
14	Dunham, Carrigan & Hayden Co.	1070	Electric goods	11 77
14	Flinn & Treacy	1071	Paving blocks	245 30
14	The Guide Pub. Co.	1072	Guides	10 50
14	W. T. Garratt & Co.	1073	Repairs on Dredger No. 1	3 60
14	E. M. Graney	1074	Shoeing horses	5 00
14	The Garlock Packing Co.	1075	Packing	5 35
14	J. Hendy Machine Wks.	1076	Plates for rails	49 00
14	Holbrook, Merrill & Stetson	1077	Tin	38 00
14	C. J. Hendry's Son & Co.	1078	Chandlery	103 23
14	G. M. Josselyn & Co.	1079	Chain	74 42
14	Judson Mfg. Co.	1080	Rail chairs	7 63
14	Merchants' Exchange Association	1081	Reporting	25 00
14	John W. Murphy	1082	Keeping horses	41 00
14	Murphy, Grant & Co.	1083	Alpaca	12 50
14	H. M. Nagle	1084	Brooms	8 00
14	Olsen & Cook	1085	Burners and globes	2 85
14	Geo. W. Pennington Sons (Inc.)	1086	Blacksmithing	79 00
14	The Pacific Coast Co.	1087	Coal	64 60
14	Pacific States Tel. & Tel. Co.	1088	Telephones	144 00
14	Payne's Bolt Works	1089	Bolts	31 21
14	Rowlands & Laughton	1090	Repairs	20 03
14	George G. Rundle	1091	Repairs, Dredger No. 2	104 72
14	S. E. Slade Lumber Co.	1092	Lumber	3,685 88
14	Steiger & Kerr	1093	Repairs, Dredger No. 2	45 75

EXHIBIT F—Continued.

DISBURSEMENTS, 1901-1902—Continued.

Date.	Order.	No.	On Account of.	Amount.
1901				
Oct. 14	Southern Pacific Co.	1094	Coal	\$584 49
14	Spring Valley Water Works	1095	Water	250 20
14	E. W. Tucker & Co.	1096	Rings and packing	26 16
14	Vulcan Iron Works	1097	Repairing plane, etc.	56 53
14	Valvoline Oil Co.	1098	Oil	33 80
14	Western Iron Works	1099	Repairs	55 00
14	J. C. Winans	1100	Packing	9 60
14	Williams, Dimond & Co.	1101	Engine supplies	245 72
14	S. F. Timber Preserving Co.	1102	Creosoting	2,825 56
14	H. M. Newhall & Co.	1103	Cement	2,641 70
14	Pacific Coast Dredging and Reclamation Co.	1104	Dredging	1,554 00
24	Hay & Wright	1105	Water tank	1,295 00
24	Julian B. Harries	1106	Experting books	37 50
24	Spoiled	1107		
30	S. E. Slade Lumber Co.	1108	Lumber	2,324 31
Nov. 1	Board of State Harbor Commissioners	1109	Payrolls	19,279 05
2	City Street Imp. Co.	1110	Repairing wharves between Main and Beale streets	1,943 85
7	Mutual Electric Light Co.	1111	Lighter	1,421 35
13	Arctic Oil Works	1112	Oil	56 03
13	Baker & Hamilton	1113	Hardware	811 23
13	Geo. L. Buswell	1114	Frictions	66 60
13	Wm. J. Brady	1115	Repairs on tugs	57 48
13	Boesch Lamp Co.	1116	Repairing headlight	12 25
13	Black Diamond Coal Mining Co.	1117	Coal	207 63
13	J. Browell	1118	Chimneys	36 00
13	Betts Spring Co.	1119	Repairing spring	3 75
13	H. S. Crocker Co.	1120	Stationery	95 45
13	Columbia Machine Wks. Co.	1121	Repairs on dredgers	33 25
13	City Front Stables	1122	Advertising	97 65
13	R. D. Chandler	1123	Keeping horse	40 25
13	C. G. Clinch & Co.	1124	Coal	877 71
13	Dunham, Carrigan & Hayden Co.	1125	Paints, oil, etc.	29 94
13	Ensign & McGuffick	1126	Hardware	15 24
13	L. Feldmann & Co.	1127	Boiler compound	18 55
13	Gibson Soap Co.	1128	Brooms, etc.	10 00
13	Garlock Packing Co.	1129	Soap polish	18 00
13	Frank Greg	1130	Packing	16 60
13	Guide Publishing Co.	1131	Sawdust	5 00
13	W. T. Garratt & Co.	1132	Guides	10 50
13	Hay & Wright	1133	Repairs	15 50
13	C. J. Hendry's Son & Co.	1134	Repairing pile-driving lighter	515 29
13	H. T. Holmes Lime Co.	1135	Chandlery	186 75
13	Holbrook, Merrill & Stetson	1136	Cement and clay	6 05
13	S. T. Hubbell & Co.	1137	Tin	104 60
13	G. M. Josselyn & Co.	1138	Water cask	25 12
13	John W. Murphy	1139	Chain	127 53
13	Merchants' Exchange Association	1140	Keeping horses	41 00
13	S. P. Nelson & Co.	1141	Reporting	25 00
13	H. M. Nagle	1142	Packing	75 12
13	J. C. O'Connor & Co.	1143	Brooms, etc.	12 25
13	O'Brien & Sons	1144	Funeral expenses, J. J. McCarthy	160 50
13	G. W. Pennington Sons (Inc.)	1145	Repairing buggy	92 00
13	Pacific Pine Co.	1146	Steel links	152 00
		1147	Piles	863 94

EXHIBIT F—Continued.

DISBURSEMENTS, 1901-1902—Continued.

Date.	Order.	No.	On Account of.	Amount.
1901				
Nov. 13	Pacific Coast Co.	1148	Coal	\$154 48
13	Pacific Coast Wrecking Co.	1149	Sail covers	19 28
13	Pacific States Tel. & Tel. Co.	1150	Telephones	149 20
13	Rowlands & Laughton ..	1151	Repairs, Dredgers Nos. 1 and 2 ..	36 68
13	George G. Rundle	1152	Repairs, Dredgers Nos. 1 and 2 ..	749 10
13	Southern Pacific Co.	1153	Coal, freight, etc.	784 94
13	Spring Valley Water Works	1154	Water	265 15
13	J. C. Sala	1155	Repairing transit	45 00
13	S. F. Timber Preserving Co.	1156	Creosoting	1,742 41
13	Steiger & Kerr	1157	Castings for Dredger No. 1	11 85
13	Geo. H. Tay Co.	1158	Plumbing supplies	43 40
13	Robert Wakefield	1159	Constructing Pier No. 19	2,858 36
20	S. F. Timber Preserving Co.	1160	Creosoting piles	3,607 57
20	Healy, Tibbitts & Co.	1161	Repairing Slips 1, 5, 6, 7	7,640 52
20	Cal. Northwestern Ry. Co.	1162	Repairing cars	18 59
20	James Byrne, Jr.	1163	Petty cash expenses	226 00
20	Boston Woven Hose and Rubber Co.	1164	Weather strips	63 00
29	Bancroft-Whitney Co.	1165	California Reports	2 50
29	Betts Spring Co.	1166	Repairing spring	11 50
29	J. Browell	1167	Chimney	33 75
29	Cunningham, Curtiss & Welch	1168	Toilet paper	10 00
29	Commercial Publishing Co.	1169	Advertising	33 00
29	H. S. Crocker Co.	1170	Stationery, etc.	131 84
29	Dunham, Carrigan & Hayden Co.	1171	Chain, etc.	84 90
29	Dundon Bridge and Construction Co.	1172	Piles	788 46
29	L. Feldmann & Co.	1173	Brooms and mats	22 00
29	W. T. Garratt & Co.	1174	Copper pipe	11 80
29	J. J. Haviside	1175	Fender	17 50
29	J. Hammond & Co.	1176	Car coupler	59 75
29	Holbrook, Merrill & Stetson	1177	Hardware	41 43
29	Pacific States Tel. & Tel. Co.	1178	Telephones	143 55
29	Geo. G. Rundle	1179	Repairing tug "Gov. Markham" ..	1,500 88
29	Southern Pacific Co.	1180	Engine repaired	202 32
29	Levi Strauss	1181	Towels	9 00
29	E. W. Tucker & Co.	1182	Metal rings	12 60
29	Geo. H. Tay Co.	1183	Hardware, etc.	16 05
29	Vulcan Iron Works	1184	Repairing Main Street slip	25 60
29	Robert Wakefield	1185	Piles	388 65
29	Williams, Dimond & Co.	1186	Rings, etc.	51 70
29	Robert Wakefield	1187	Constructing Filbert St. Wharf ..	3,893 58
29	H. M. Newhall & Co.	1188	Cement	1,848 00
29	S. E. Slade Lumber Co.	1189	Lumber	3,712 49
29	Black Diamond Coal Mining Co.	1190	Coal	482 08
29	J. Hammond & Co.	1191	Repairs on tug "Gov. Markham" and Dredger No. 1	1,128 01
Dec. 4	Board of State Harbor Commissioners	1192	Payrolls	19,403 30
4	Hyde Construction Co.	1193	Repairing Main Street Pier	2,529 60
4	Darby Laydon	1194	Constructing an addition to Mission No. 1	842 39
4	Darby Laydon	1195	Constructing an addition to Piers 2 and 3	5,485 81

EXHIBIT F—*Continued.*DISBURSEMENTS, 1901-1902—*Continued.*

Date.	Order.	No.	On Account of.	Amount.
1901				
Dec. 4	R. D. Chandler	1196	Coal	\$932 95
11	Hannah Bros.	1197	Office and storeroom between Slips 2 and 3	764 00
11	San Francisco Timber Preserving Co.	1198	Creosoting piles	1,669 30
11	Mutual Electric Light Co.	1199	Lights	1,521 32
11	Geo. G. Rundle	1200	Repairing tug "Gov. Markham" ..	2,899 66
11	The Pacific Coast Co.	1201	Coal	445 25
11	J. J. Pera	1202	Damage to wagon	100 00
11	Wm. J. Brady	1203	Repairs to "Gov. Markham" and Belt Railroad	679 20
13	Arctic Oil Works	1204	Oil	33 25
13	Boesch Lamp Co.	1205	Repairing headlight, etc.	24 55
13	Braun & Prior	1206	Boat covers	18 48
13	J. Browell	1207	Chimneys	62 00
13	Baker & Hamilton	1208	Hardware	1,013 51
13	Callahan Paint Co.	1209	Painting tug "Gov. Markham" ..	60 70
13	Columbia Machine Wks.	1210	Repairs Dredger No. 1	4 10
13	H. S. Crocker Co.	1211	Blue-print paper	9 65
13	Thomas Day Co.	1212	Electric fixtures	29 90
13	Dunham, Carrigan & Hayden Co.	1213	Chain, etc.	18 45
13	Dundon Bridge and Construction Co.	1214	Piles	829 16
13	Flinn & Treacy	1215	Basalt blocks	204 00
13	Fulton Engineering and Shipbuilding Works	1216	Repairs, Dredger No. 1	3 00
13	Guide Publishing Co.	1217	Guides	10 50
13	Merchants' Exchange Association	1218	Reporting	25 00
13	John W. Murphy	1219	Keeping horses	40 25
13	S. P. Nelson & Co.	1220	Packing	64 24
13	S. F. Dry Dock Co.	1221	Docking tug "Gov. Markham" ..	216 80
13	Spring Valley Water Works	1222	Water	269 25
13	Geo. H. Tay Co.	1223	Plumbing supplies	10 91
13	U. S. Laundry Ass'n.	1224	Washing	16 95
13	J. C. Winans	1225	Packing	3 00
13	West Coast Wire and Iron Works	1226	Gates	67 50
13	Robert Wakefield	1227	Straps	21 90
18	City Street Imp. Co.	1228	Repairing wharves along Bryant and Beale Streets	3,336 14
18	Pacific Pine Co.	1229	Piles	1,693 51
18	Pacific States Tel. & Tel. Co.	1230	Telephones	143 05
18	Commercial Publishing Co.	1231	Advertising	48 15
18	Geo. F. Buswell	1232	Maple frictions	35 00
18	Robt. Wakefield	1233	Lumber	111 10
18	Rowlands & Laughton	1234	Repairs on dredgers	216 81
30	City Front Stables	1235	Keeping horse	20 00
30	E. J. Crowley	1236	Shoeing horses	10 00
30	S. F. Dry Dock Co.	1237	Docking, "Gov. Markham"	32 50
30	H. M. Nagle	1238	Brooms	8 00
30	Langley & Michaels Co.	1239	Methyl spirits	8 50
1902				
Jan. 3	Board of State Harbor Commissioners	1240	Payrolls	19,250 15
3	Hyde Construction Co.	1241	Repairing Second, Third, Harrison, and Steuart Sts. wharves	1,856 06
3	Fred Miller	1242	Sheds over aprons at car ferry slips	2,366 25
8	Darby Laydon	1243	Constructing an addition to Mis- sion St. Wharf No. 1	1,816 94
8	Hyde Construction Co.	1244	Repairing and repiling bulkhead between Piers 9 and 11	2,840 00

EXHIBIT F—*Continued.*DISBURSEMENTS, 1901-1902—*Continued.*

Date.	Order.	No.	On Account of.	Amount.
1902				
Jan. 8	Hyde Construction Co.	1245	Repairs and materials for bulkhead between Piers 9 and 11.....	\$758 16
8	H. M. Newhall & Co.	1246	Cement	2,622 08
8	S. F. Timber Preserving Co.	1247	Creosoting piles	1,559 79
8	S. F. Timber Preserving Co.	1248	Creosoting piles	489 78
8	Robt. Wakefield	1249	Constructing Pier 19	2,471 56
8	James Byrne, Jr.	1250	Petty cash expenses	79 65
8	Geo. G. Rundle	1251	Repairing tug "Gov. Irwin" and dredger	1,799 79
8	S. E. Slade Lumber Co.	1252	Lumber	2,239 30
8	Mutual Electric Light Co.	1253	Lights	1,604 90
8	National Bank of D. O. Mills & Co.	1254	Exchange	161 31
13	Arctic Oil Works	1255	Oil	127 58
13	Bauer Lamp and Reflector Co.	1256	Lamps	79 00
13	Wm. J. Brady	1257	Repairs, tug "Gov. Irwin"	208 10
13	H. S. Crocker Co.	1258	Stationery, etc.	83 87
13	Clot & Crist Machine Co.	1259	Repairs, tug "Gov. Irwin"	120 60
13	Callahan Paint Co.	1260	Painting tug "Gov. Irwin"	44 50
13	R. D. Chandler	1261	Coal	789 00
13	Dunham, Carrigan & Hayden Co.	1262	Hardware	95 99
13	The Economy Mfg. Co.	1263	Runner, spindle, etc.	34 00
13	Guide Publishing Co.	1264	Guides	10 50
13	Gray Bros.	1265	Rock, Belt Railroad	210 16
13	W. T. Garratt & Co.	1266	Repairs	12 32
13	J. Hammond & Co.	1267	Repairs, tug "Gov. Irwin"	469 68
13	C. J. Hendry's Son & Co.	1268	Chandlery	239 76
13	Holbrook, Merrill & Stetson	1269	Hardware	35 75
13	Merchants' Exchange Association	1270	Reporting	25 00
13	John W. Murphy	1271	Keeping horses	43 85
13	H. M. Nagle	1272	Brooms	8 00
13	Marshutz & Cantrell	1273	Gears, etc.	325 50
13	Levi Strauss & Co.	1274	Towel crash	10 26
13	S. F. & S. J. Valley Railway Co.	1275	Rent of engine	17 80
13	Spring Valley Water Works	1276	Water	247 30
13	E. W. Tucker & Co.	1277	Metal rings	12 60
13	Vulcan Iron Works	1278	Repairing hoist	431 36
13	S. F. Timber Preserving Co.	1279	Creosoting	913 29
13	S. F. Towel Co.	1280	Towel service	7 00
20	Julian B. Harries	1281	Experting books	37 50
20	Wm. Belser	1282	Sewer at foot of Powell Street	656 88
20	Hyde Construction Co.	1283	Repairing Fremont Street Wharf	2,044 00
20	H. M. Newhall & Co.	1284	Cement	1,535 07
22	Wm. Cronan	1285	Constructing Union Depot	2,727 42
22	City Street Imp. Co.	1286	Repairing Beale Street	1,760 00
22	H. R. Rood & Co.	1287	Coating piles	648 40
22	Healy, Tibbitts & Co.	1288	Constructing and repairing Slips 1, 5, 6, and 7	1,706 05
29	Robt. Wakefield	1289	Constructing Pier 21	6,489 30
29	Chas. C. Horton	1290	Shed on Mission and Washington Street wharves	1,325 93
29	S. E. Slade Lumber Co.	1291	Lumber	2,513 96
29	C. F. Doe	1292	Lumber	701 47
29	Pacific Coast Co.	1293	Coal	603 54
29	Pacific States Tel. & Tel. Co.	1294	Telephones	143 90

EXHIBIT F—*Continued.*DISBURSEMENTS, 1901-1902—*Continued.*

Date.	Order.	No.	On Account of.	Amount.
1902				
Jan. 29	Hyde Construction Co.	1295	Sewer at Broadway bulkhead	\$308 00
29	Commercial Pub. Co.	1296	Advertising	106 75
29	Rowlands & Laughton	1297	Repairs	160 85
29	Southern Pacific Co.	1298	Freight	158 32
29	S. F. Timber Preserving Co.	1299	Creosoting	334 44
29	Healy, Tibbitts & Co.	1300	Extra work on Slip No. 6	171 05
Feb. 4	Board of State Harbor Commissioners	1301	Payrolls	19,368 35
5	Fred Miller	1302	Sheds over aprons at car ferry slips	788 75
5	Mutual Electric Light Co.	1303	Lights	1,626 67
12	Healy, Tibbitts & Co.	1304	Repairing Slip No. 7	1,081 74
12	Hannah Bros.	1305	Constructing shed on Pier 19 (Union No. 2)	4,789 88
13	Atlas Pipe Wrench Co.	1306	Wrenches	12 13
13	Arctic Oil Works	1307	Oil	55 44
13	Wm. J. Brady	1308	Repairs	41 37
13	J. Browell	1309	Constructing chimney	23 00
13	Bancroft-Whitney Co.	1310	U. S. and Cal. Reports	11 00
13	Boston Woven Hose and Rubber Co.	1311	Hose	35 00
13	Braun & Prior	1312	Boat cover	9 56
13	Boesch Lamp Co.	1313	Repairing headlight	3 00
13	Baker & Hamilton	1314	Hardware	1,530 02
13	R. D. Chandler	1315	Coal	1,632 90
13	Commercial Pub. Co.	1316	Advertising	27 50
13	H. S. Crocker Co.	1317	Stationery, etc.	135 90
13	Clot & Crist Machine Co.	1318	Repairs, tug "Gov. Irwin"	8 10
13	City Front Stables	1319	Keeping horses	43 75
13	Cunningham, Curtiss & Welch	1320	Toilet paper	20 00
13	Columbia Machine Wks.	1321	Repairs, Dredger No. 1	9 25
13	C. G. Clinch & Co.	1322	Paints, oils, etc.	328 04
13	P. F. Dundon's S. F. Iron Works	1323	Repairs, Dredger No. 2	126 90
13	Thos. Day Co.	1324	Electric fixtures	9 20
13	Dunham, Carrigan & Hayden Co.	1325	Hardware	44 27
13	L. Feldmann & Co.	1326	Brushes	63 80
13	Flinn & Treacy	1327	Gravel	73 60
13	Geo. H. Fuller Desk Co.	1328	Desks and chairs	76 20
13	The Garlock Pack'g Co.	1329	Hose, etc.	13 50
13	The Guide Pub. Co.	1330	Guides	10 50
13	Gray Bros.	1331	Rock	26 50
13	Goodyear Rubber Co.	1332	Covers, etc.	8 77
13	The Gibson Soap Co.	1333	Soap polish	21 00
13	Frank Greg	1334	Sawdust	10 00
13	Gorham Rubber Co.	1335	Packing, etc.	53 67
13	W. T. Garratt & Co.	1336	Repairs	9 00
13	H. T. Holmes & Co.	1337	Lime and clay	6 35
13	Holbrook, Merrill & Stetson	1338	Hardware	68 90
13	J. Hammond & Co.	1339	Piston rod	4 45
13	C. J. Hendry's Son & Co.	1340	Chandlery	113 96
13	G. M. Josselyn & Co.	1341	Chain	74 16
13	Merchants' Exchange Association	1342	Reporting	25 00
13	John W. Murphy	1343	Keeping horses, etc.	55 00
13	H. A. Moore	1344	Settees	75 60
13	Magnesia Asbestos Supply Co.	1345	Boiler covering	110 00
13	W. W. Montague & Co.	1346	Reflectors	81 00
13	H. M. Nagle	1347	Brooms	8 00
13	J. Henty Machine Wks	1348	Repairs, Belt Railroad	6 40
13	O'Brien & Sons	1349	Repairing buggy	18 75

EXHIBIT F—*Continued.*DISBURSEMENTS, 1901-1902—*Continued.*

Date.	Order.	No.	On Account of.	Amount.
1902				
Feb. 13	Olsen & Cook	1350	Repairs on tugs	\$38 96
13	Pacific Pine Co.	1351	Piles	679 86
13	Pacific Coast Co.	1352	Coal	157 56
13	Pacific Electric Corp.	1353	Electrical works	25 00
13	Pacific Hardware and Steel Co.	1354	Bolts	18 53
13	Payne's Bolt Works	1355	Bolts	167 81
13	Pacific States Tel. & Tel. Co.	1356	Telephones	156 00
13	W. S. Ray Mfg. Co.	1357	Stove, etc.	13 58
13	Spring Val'y Water W'ks	1358	Water	253 20
13	Simpson Lumber Co.	1359	Lumber	12 36
13	Geo. H. Tay Co.	1360	Hardware	34 55
13	Valvoline Oil Co.	1361	Oil	34 13
13	Vulcan Iron Works	1362	Head for cylinder hoist	35 00
13	Chas. A. Warren	1363	Repairing streets	122 00
13	U. S. Laundry Ass'n	1364	Washing	11 35
13	The Chas. Nelson Co.	1365	Rebate dockage, Str. "Centennial"	136 80
19	Atlantic, Gulf, and Pacific Co.	1366	Dredging Channel Street	3,486 75
19	H. M. Newhall & Co.	1367	Cement	2,234 66
27	Dundon Bridge and Construction Co.	1368	Repairing Union Street Wharf	5,709 00
27	Healy, Tibbitts & Co.	1369	Repairing Folsom No. 2 Wharf	1,509 75
27	Southern Pacific Co.	1370	Repairing engine, Belt Railroad	3,245 50
27	S. E. Slade Lumber Co.	1371	Lumber	3,347 05
27	S. F. Timber Pres'v'g Co.	1372	Preserving piles	1,279 89
27	Hyde Construction Co.	1373	Repairing Fremont Street Wharf	221 30
27	Britton & Rey	1374	Maps	50 00
27	E. M. Graney	1375	Shoeing horses	12 50
27	Gray Bros.	1376	Rock, Belt Railroad	498 25
Mar. 4	Board of State Harbor Commissioners	1377	Payrolls	18,912 40
5	Mutual Elec. Light Co.	1378	Lights	1,426 30
5	R. D. Chandler	1379	Coal	1,401 59
5	Hyde Construction Co.	1380	Repairing Fremont Street Wharf	681 33
5	Robert Wakefield	1381	Constructing Pier 23	3,838 50
5	R. Dunsmuir's Sons Co.	1382	Repairing Folsom No. 2	2,430 00
5	James Byrne, Jr.	1383	Petty cash expenses	154 58
12	Robert Wakefield	1384	Piles for Pier 21	807 75
12	Healy, Tibbitts & Co.	1385	Cancellation of contract	200 00
12	Healy, Tibbitts & Co.	1386	Extra work on Folsom No. 2 Wharf	1,553 31
12	Healy, Tibbitts & Co.	1387	Repairing Folsom No. 2 Wharf	712 13
12	Charles C. Horton	1388	Shed on Piers 2 and 3	1,767 90
19	Hyde Construction Co.	1389	Repairs on Fremont Street	1,397 00
19	Hyde Construction Co.	1390	Laying lumber, Fremont Street	1,608 00
19	F. S. Stratton	1391	Legal services	1,500 00
19	A. W. Von Schmidt	1392	Services as expert	100 00
24	Arctic Oil Works	1393	Oil	84 10
24	William J. Brady	1394	Repairs to Dredger No. 1 and tug "Governor Markham"	36 21
24	Boesch Lamp Co.	1395	Repairs to engine headlight	11 75
24	J. Browell	1396	Constructing chimney	25 00
24	Baker & Hamilton	1397	Hardware	689 52
24	Boston Woven Hose and Rubber Co.	1398	Packing	2 70
24	Cunningham, Curtiss & Welch	1399	Toilet paper	10 00
24	City Front Stables	1400	Keeping horses	31 31
24	T. J. Crowley	1401	Shoeing horses	12 50
24	H. S. Crocker Co.	1402	Stationery, etc.	233 45
24	Commercial Pub. Co.	1403	Advertising	80 00
24	City Street Imp. Co.	1404	Paving	221 80
24	N. Clark & Son	1405	Sewer pipe	8 08
24	Geo. E. Dow Pumping Engine Co.	1406	Repairs, tug "Gov. Markham"	4 60

EXHIBIT F—Continued.

DISBURSEMENTS, 1901-1902—Continued.

Date.	Order.	No.	On Account of.	Amount.
1902				
Mar. 24	Dunham, Carrigan & Hayden Co.	1407	Hardware	\$84 06
24	C. G. Clinch	1408	Paints, oil, etc.	112 55
24	Flinn & Treacy	1409	Paving blocks	610 40
24	Federal Salt Co.	1410	Rebate of wharfage	105 00
24	Geo. H. Fuller Desk Co.	1411	Chairs	10 35
24	L. Feldmann & Co.	1412	Dusters, etc.	24 00
24	Gray Bros.	1413	Rock, Belt Railroad	166 10
24	The Guide Pub. Co.	1414	Guides	10 50
24	The Gibson Soap Co.	1415	Soap polish	18 00
24	E. M. Graney	1416	Shoeing horses	12 50
24	Frank Greg	1417	Sawdust	5 00
24	Gorham Rubber Co.	1418	Packing	5 31
24	W. T. Garratt & Co.	1419	Repairs to Dredger No. 1	10 45
24	Holmes Lime Co.	1420	Fire brick	11 78
24	Holbrook, Merrill & Stetson	1421	Hardware	25 45
24	C. J. Hendry's Son & Co.	1422	Chandlery, etc.	244 37
24	Hyde Construction Co.	1423	Bolts, etc.	392 92
24	Joshua Hendy's Machine Works	1424	Repairs, Belt Railroad	37 98
24	Judson Mfg. Co.	1425	Repairing rail straightener	34 65
24	The Merchants' Exch'ge	1426	Reporting	25 00
24	John W. Murphy	1427	Keeping horses	33 04
24	H. M. Nagle	1428	Brooms	8 00
24	O'Brien & Sons	1429	Repairing buggy	9 00
24	Payne's Bolt Works	1430	Bolts	8 66
24	Pacific States Tel. & Tel. Co.	1431	Telephones	149 90
24	Sidney L. Plant	1432	Boiler compound	14 70
24	Rowlands & Laughton	1433	Repairs to dredger	121 00
24	H. R. Rood & Co.	1434	Coating piles	1,298 00
24	George Rundle	1435	Repairs on dredgers	37 14
24	Southern Pacific	1436	Repairing Engine No. 2	891 58
24	S. F. Timber Preserving Works	1437	Creosoting	318 86
24	Swan, the Painter	1438	Sign	23 40
24	Spring Valley Water Works	1439	Water	245 20
24	George H. Tay Co.	1440	Hardware	55 59
24	Chas. A. Warren	1441	Rock	99 00
24	Yates & Co.	1442	Oil	197 45
24	W. T. Garratt & Co.	1443	In lieu of draft No. 1009, Sept. 12, 1901	
26	Fred Miller	1444	Shed between Piers 9 and 11	1,108 05
Apr. 2	Hyde Construction Co.	1445	Repairs on Main and Washington Street wharves	651 10
2	City Street Imp. Co.	1446	Paving Lombard Street	1,781 16
2	H. M. Newhall & Co.	1447	Cement	1,232 00
2	Healy, Tibbitts & Co.	1448	Repairing and repiling wharf on north side channel	1,555 72
2	R. Dunsmuir Sons Co.	1449	Repairing Pier 14	1,186 72
2	P. F. Dundon's S. F. Iron Works	1450	Repairing dredger bucket	701 11
2	C. G. Clinch & Co.	1451	Paints, oils, etc.	515 01
2	Vulcan Iron Works	1452	Repairing hoists at Lombard St.	440 78
2	S. E. Slade Lumber Co.	1453	Lumber	3,629 87
2	Board of State Harbor Commissioners	1454	Payrolls	19,547 05
9	H. M. Newhall & Co.	1455	Cement	947 78
9	Hyde Construction Co.	1456	Repairing Mission No. 1 Wharf	806 44
9	Spring Valley Water Works	1457	Water	246 95
9	R. D. Chandler	1458	Coal	1,323 33
9	Mutual Electric Light Company	1459	Light	1,471 59

EXHIBIT F—*Continued.*DISBURSEMENTS, 1901-1902—*Continued.*

Date.	Order.	No.	On Account of.	Amount.
1902				
Apr. 12	Arctic Oil Works	1460	Oil	\$43 90
12	Baker & Hamilton	1461	Hardware	334 78
12	City Front Stables	1462	Keeping horses	40 50
12	Cal. Electrical Works	1463	Electrical goods	112 07
12	Columbia Machine Wks.	1464	Repairs on Dredger No. 2	12 00
12	Commercial Pub. Co.	1465	Advertising	23 40
12	Dunham, Carrigan & Hayden Co.	1466	Sockets, etc.	171 05
12	Eagle Rubber Co.	1467	Packing, etc.	36 58
12	Geo. H. Fuller Desk Co.	1468	Desk and chairs	37 35
12	Forderer Cornice Works	1469	Skylight bars	59 10
12	Gorham Rubber Co.	1470	Packing	40 63
12	The Guide Pub. Co.	1471	Guides	10 50
12	Frank Greg.	1472	Sawdust	5 00
12	C. J. Hendry's Son & Co.	1473	Chandlery	48 87
12	G. M. Josselyn & Co.	1474	Chain	108 33
12	Judson Mfg. Co.	1475	Rail sockets	56 25
12	Langley & Michaels Co.	1476	Disinfectant	20 92
12	John W. Murphy	1477	Keeping horse	24 00
12	Marine Exchange	1478	Reporting	25 00
12	Merchants' Exchange Association	1479	Reporting	25 00
12	Murray Bros.	1480	Boiler	361 75
12	H. M. Nagle	1481	Brooms	11 25
12	Payne's Bolt Works	1482	Bolts	4 40
12	J. A. Roebling's Sons & Co.	1483	Wire	13 02
12	U. S. Laundry Ass'n	1484	Laundry	10 65
12	Yates & Co.	1485	Oil	76 54
16	M. C. Harris	1486	Plans and specifications for dredger	500 00
16	H. M. Newhall & Co.	1487	Cement	1,232 00
16	Chas. C. Horton	1488	Sheds on Piers 2 and 3	1,325 92
16	Hannah Bros.	1489	Shed on Pier 19	2,873 92
16	Dundon Bridge and Con- struction Co.	1490	Repairing approach to Pier 17	844 17
16	Dundon Bridge and Con- struction Co.	1491	Repairing Union Street Wharf.	2,859 30
16	Pacific States Tel. & Tel. Co.	1492	Telephones	151 55
16	Robert Wakefield	1493	Constructing Filbert Street Wharf	2,554 80
23	Julian B. Harries	1494	Experting books	37 50
23	Clement Bennett	1495	Reporting and transcribing	252 80
30	Spoiled	1496	.....	.....
30	William Cronan	1497	Constructing Union Depot	2,727 43
30	H. M. Newhall & Co.	1498	Cement	1,232 00
30	Robert Wakefield	1499	Repairing bulkhead bet. Piers 19-21	777 02
30	S. E. Slade Lumber Co.	1500	Lumber	3,637 15
May 3	Board of State Harbor Commissioners	1	Payrolls	19,666 40
7	Fred Miller	2	Constructing building on bulkhead between Piers 9-11	738 70
7	Dundon Bridge and Con- struction Co.	3	Repairing Green Street Wharf	1,200 88
7	Hyde Construction Co.	4	Repairing Lombard Street Wharf	2,379 55
7	Robert Wakefield	5	Constructing Pier 23	3,838 50
7	Robert Wakefield	6	Repairing bulkhead, Pier 25	1,805 60
7	Robert Wakefield	7	Planking Pier 21	1,857 60
7	Wheaton & Kalloch	8	Court fee	56 90
7	R. D. Chandler	9	Coal	1,313 55
7	Spring Valley Water Works	10	Water	277 50
7	Mutual Electric Light Co.	11	Light	1,374 46
7	National Bank of D. O. Mills & Co.	12	Exchange	202 95
7	S. F. Timber Preserving Co.	13	Creosoting	1,464 90

EXHIBIT F—Continued.

DISBURSEMENTS, 1901-1902—Continued.

Date.	Order.	No.	On Account of.	Amount.
1902				
May 7	A. W. Beadle & Co.	14	Office, Mission Street No. 1	\$300 00
7	Southern Pacific Co.	15	Freight	35 67
7	Sunset Photo-Engraving Co.	16	Photos of Howard No. 2	10 00
7	Fred Miller	17	Office	32 50
8	H. R. Rood & Co.	18	Coating piles	1,316 00
13	Arctic Oil Works	19	Oil	22 56
13	Britton & Rey	20	Water Front maps	45 00
13	G. F. Buswell	21	Frictions	25 00
13	Cunningham, Curtiss & Welch	22	Toilet paper	10 00
13	City Street Imp. Co.	23	Pulling piles	162 80
13	C. G. Clinch & Co.	24	Paint, oil, etc.	335 01
13	H. S. Crocker Co.	25	Stationery	45 56
13	Chas. F. Doe & Co.	26	Cedar lumber	140 09
13	Flinn & Treacy	27	Gravel	115 00
13	L. Feldmann & Co.	28	Bristle brooms	18 00
13	Gorham Rubber Co.	29	Gaskets	4 80
13	Gray Bros.	30	Rock, Belt Railroad	22 00
13	J. J. Haviside & Son	31	Spars for fenders	40 00
13	Holbrook, Merrill & Stetson	32	Hardware	28 07
13	Joshua Hendy Machine Works	33	Brake shoes	26 30
13	Marshutz & Cantrell	34	Repairs, Dredger No. 2	102 10
13	O'Brien & Sons	35	Repairing buggy	5 50
13	Payne's Bolt Works	36	Bolts	59 95
13	Sydney L. Plant	37	Boiler compound	14 70
13	Pacific Pine Co.	38	Piles	643 87
13	George G. Rundle	39	Repairs, Dredger No. 1	113 68
13	S. F. Timber Preserving Co.	40	Creosoting piles	2,911 95
13	W. & J. Sloane & Co.	41	Shades	6 90
13	E. W. Tucker & Co.	42	Metal rings	12 14
13	Geo. H. Tay Co.	43	Hardware	8 22
13	Chas. A. Warren	44	Rock	167 25
13	Yates & Co.	45	Oil	64 64
13	City Street Imp. Co.	46	Paving	127 30
14	Dundon Bridge and Construction Co.	47	Repairing Green Street Wharf	478 22
14	James Byrne, Jr.	48	Petty cash expenses	256 10
21	Hannah Bros.	49	Furnishing materials and constructing shed on Pier 19	1,915 95
21	Dundon Bridge and Construction Co.	50	Repairing and repiling Pier 17	2,856 10
21	Chas. C. Horton	51	Furnishing materials and constructing an addition to shed at Pier 2	1,473 25
26	G. W. Clark & Co.	52	Papering	34 88
26	City Front Stables	53	Boarding horse	35 68
26	Eagle Rubber Co.	54	Packing	12 90
26	Frank Greg	55	Sawdust	5 00
26	Geo. W. Kneass	56	Repairing yawl	39 89
26	John W. Murphy	57	Boarding horse	25 05
26	S. P. Nelson & Co.	58	Packing	17 28
26	Olsen & Cook	59	Supplies	10 00
26	The S. F. Towel Co.	60	Towel service	7 00
26	Scott & Magner	61	Supplies	11 97
26	Pacific States Tel. & Tel. Co.	62	Telephones	172 00
26	Arctic Oil Works	63	Supplies	23 70
26	Baker & Hamilton	64	Supplies	803 53
26	H. S. Crocker Co.	65	Supplies	51 96
26	California Elec. Works	66	Supplies	18 54
26	L. Feldmann & Co.	67	Brooms, etc.	15 18
26	The Guide Pub. Co.	68	Guides	10 50
26	Goodyear Rubber Co.	69	Hose	11 43

EXHIBIT F—Continued.

DISBURSEMENTS, 1901-1902—Continued.

Date.	Order.	No.	On Account of.	Amount.
1902				
May 26	W. T. Garratt & Co.	70	Bushings	\$10 50
26	Gray Bros.	71	Rock, Belt Railroad	121 75
26	C. J. Hendry's Son & Co.	72	Supplies	47 38
26	Merchants' Exchange	73	Reporting	25 00
26	The Marine Exchange	74	Reporting	25 00
26	H. M. Nagle	75	Push-brooms	9 00
26	Valvoline Oil Co.	76	Oil	34 13
28	Hyde Construction Co.	77	Repairing Lombard Street Wharf ..	1,981 60
28	S. E. Slade Lumber Co.	78	Lumber	3,119 25
28	"The Evening Post"	79	Advertising	175 00
28	California Northwest'rn Railway Co.	80	Rails	1,381 50
28	Southard Hoffman	81	Fees	220 85
28	National Surety Co.	82	Bond	60 00
28	Joseph Fredericks & Co.	83	Carpets	215 45
28	Chas. A. Warren	84	Rocks	147 50
28	Flinn & Treacy	85	Paving blocks	450 00
28	Phillips, Smythe & Van Orden	86	Printing	114 75
28	W. S. Phelps & Co.	87	Repairs	320 44
June 4	Board of State Harbor Commissioners	88	Payroll	20,919 00
4	H. M. Newhall & Co.	89	Cement	1,232 00
4	Robert Wakefield	90	Construction of Pier 23	2,559 00
4	Robert Wakefield	91	Construction of Pier 25	1,895 85
4	Hyde Construction Co.	92	Repairing Lombard Street Wharf ..	1,296 39
4	Robert Wakefield	93	Piles	1,615 05
4	S. F. Timber Preserving Co.	94	Creosoting	1,737 87
4	Guide Publishing Co.	95	Guides	10 50
4	Merchants' Exchange	96	Reporting	25 00
4	"The Evening Post"	97	Advertising	60 50
4	The Marine Exchange	98	Reporting	25 00
4	John Twigg & Sons	99	Skiff	43 00
4	Taylor & Brickly Co.	100	Whitewashing Fishermen's Wharf ..	50 00
11	Mutual Elect. Light Co.	101	Lights	1,383 86
11	R. D. Chandler	102	Coal	1,109 47
11	Spring Val. Water Wrks	103	Water	251 95
11	Studebaker Bros. Manu- facturing Co.	104	Sprinkler	358 50
11	Chas. F. Doe & Co.	105	Lumber	1,625 45
11	Pacific Pine Co.	106	Piles	966 44
11	Yates & Co.	107	Paints, oils, etc.	464 41
11	George G. Rundle	108	Dredger poles	101 83
11	W. W. Montague	109	Steam-heating pipes	86 00
11	Pacific Coast Dredging and Reclamation Co.	110	Dredging Channel Street	2,051 25
11	W. S. Phelps & Co.	111	Repairing Union Street	106 09
13	I. Willard Beam	112	Wire rope	27 60
13	Cal. Fireworks Co., Ltd.	113	Flag	10 45
13	City Front Stables	114	Keeping horses	42 25
13	Cal. Electrical Works	115	Electrical goods	153 91
13	T. J. Crowley	116	Shoeing horses	10 00
13	R. F. Crockard	117	Cold shots	5 50
13	Cunningham, Curtiss & Welch	118	Hoyt's toilet paper	10 00
13	H. S. Crocker Co.	119	Stationery	27 15
13	Dunham, Carrigan & Hayden Co.	120	Hardware	43 29
13	Gibson Soap Co.	121	Soap polish	18 00
13	Frank Greg	122	Sawdust	5 00
13	W. T. Garratt & Co.	123	Bolts	5 40
13	The Hicks-Judd Co.	124	Books	15 00
13	Holbrook, Merrill & Stetson	125	Hardware	27 36
13	Judson Mfg. Co.	126	Switch stands	30 00

EXHIBIT F—*Continued.*DISBURSMENTS, 1901-1902—*Continued.*

Date.	Order.	No.	On Account of.	Amount.
1902				
Jun. 13	John W. Murphy.....	127	Keeping horse.....	\$21 50
13	Mysell-Rollins Co.	128	Proposal blanks.....	6 00
13	Murray Bros.	129	Sheave boxes.....	10 00
13	O'Brien & Sons.....	130	Repairing buggy.....	11 75
13	Rowlands & Laughton..	131	Repairs.....	77 30
13	Spring Valley Water Works.....	132	Service connection.....	5 00
13	Studebaker Bros. Co.	133	Repairs.....	8 70
18	Flinn & Treacy.....	134	Repairing Union Street sewer.....	1,313 20
18	Novelty Sign Co.	135	Wiring tower.....	2,158 50
18	H. M. Newhall & Co.	136	Cement.....	1,232 00
25	Healy, Tibbitts & Co.	137	Repairing Folsom No. 2.....	740 62
25	H. M. Newhall & Co.	138	Cement.....	1,229 54
25	Robt. Wakefield.....	139	Constructing Pier No. 25.....	1,895 85
25	F. D. Monckton.....	140	Court fees, patent case.....	535 45
Deferred payment drafts matured and were paid out of the San Francisco Harbor Improvement Fund, as follows:				\$666,394 33
1901				
Nov. 28	H. R. Rood & Co.	17	Coating piles.....	\$1,164 24
Dec. 4	Healy, Tibbitts & Co.	20	Repairing ferry slips.....	1,766 69
4	Darby Laydon.....	23	Addition to Washington Street.....	3,745 00
1902				
Feb. 28	H. R. Rood & Co.	18	Coating piles.....	1,746 36
Mar. 4	Healy, Tibbitts & Co.	21	Repairing ferry slips.....	1,766 70
7	Hyde Construction Co.	24	Repairing Main Street.....	1,447 41
7	Hyde Construction Co.	25	Repairing Mission 1-2, Howard 1-2.....	2,529 68
11	S. F. Timber Preserving Co.	26	Creosoting piles.....	3,023 63
Apr. 24	Robert Wakefield.....	3	Constructing Car Ferry Slips 1-2.....	3,649 75
8	Robert Wakefield.....	29	Constructing Union St. Wharf.....	3,089 45
22	Healy, Tibbitts & Co.	45	Repairing Slips 1, 5, 6, 7.....	1,706 05
May 28	H. R. Rood & Co.	19	Coating piles.....	2,910 60
June 4	Healy, Tibbitts & Co.	22	Repairing ferry slips.....	1,766 70
11	S. F. Timber Preserving Co.	27	Creosoting piles.....	4,535 44
19	S. F. Timber Preserving Co.	51	Creosoting piles.....	1,696 66
				36,544 36
Net amount drawn from the San Francisco Harbor Improvement Fund for fiscal year 1901-1902.....				\$702,938 69

EXHIBIT G.

BALANCE SHEET FROM NOVEMBER 4, 1863, TO JUNE 30, 1902.

RECEIPTS.	
From dockage, tolls, wharfage, rents, Belt Railroad, etc.	\$17,826,334 99
From San Francisco Depot Sinking Fund, transfer (fiscal years 1898-1900)	36,000 00
From drafts returned (fiscal years 1898-1900)	158 25
From drafts returned (fiscal years 1900-1902)	11,623 43
	<u>\$17,874,116 67</u>
DISBURSEMENTS.	
Salaries Commissioners, secretaries, collectors, wharfingers, etc.	\$3,909,076 81
Constructing and repairing wharves, sheds, etc.	8,089,625 09
Constructing seawall and improving seawall lots	2,648,731 99
Purchase and constructing dredgers, scows, tugs, etc.	208,847 45
Dredging, cost of	1,840,481 12
Payroll of crew of fireboat	112,672 95
Suspense account (old defalcations)	5,460 55
Miscellaneous (damage to wharves, toll returned, etc.)	71,101 80
Constructing and operating Belt Railroad	394,716 70
Balance in S. F. Depot Sinking Fund, June 30, 1900. \$412,159 00	
Amount transferred to S. F. Depot Sinking Fund from July 1, 1900, to June 30, 1902	111,144 00
	<u>523,303 00</u>
Cash in treasury June 30, 1902	70,099 21
	<u>\$17,874,116 67</u>
Dr. CASH.	
To amount remitted to State Treasurer	\$10,610,448 97
To drafts returned	11,623 43
	<u>\$10,622,072 40</u>
Cr. CASH.	
By amount drawn from State Treasurer	\$10,028,670 19
By amount to S. F. Depot Sinking Fund	523,303 00
By cash on hand in treasury	70,099 21
	<u>\$10,622,072 40</u>

EXHIBIT H.

CONSTRUCTION ACCOUNT No. 1.

WORK UNDER WAY AT DATE OF LAST BIENNIAL REPORT, AND SINCE COMPLETED.

Rebuilding Pier No. 10 (Howard Street Wharf No. 3). City Street Improvement Co., contractors. Date of contract, December 6, 1899.

Contract price	\$46,198 40	
Less 477 feet of cylinders, at \$1.60 per foot	763 20	
		<u>\$45,435 20</u>
Paid Mar. 14, 1900—Estimate No. 1	\$15,591 96	
Paid May 3, 1900—Estimate No. 2	5,197 32	
Paid June 7, 1900—Estimate No. 3	6,929 76	
Paid July 7, 1900—Estimate No. 4	5,197 32	
Paid Aug. 27, 1900—Estimate No. 5	12,518 84	
		<u>45,435 20</u>

Repiling and repairing Pier No. 24 (Spear Street Wharf). James A. McMahon, contractor. Date of contract, January 20, 1900.

Contract price—

Furnishing and driving piles under shed, \$15.62 per pile.

Furnishing and driving piles outside shed, \$14.23 per pile.

Furnishing and laying lumber, \$21.75 per 1,000 feet (B. M.).

Work done—

93 piles driven under shed, at \$15.62 per pile	---	\$1,452 66
17 piles driven outside shed, at \$14.23 per pile	----	241 91
13,804 feet of lumber laid, at \$21.75 per 1,000 feet	---	408 99
13 old piles rebolted, at \$1 per pile	-----	13 00
1 day's time for foreman and 4 men and driver	---	30 00

\$2,146 56

Paid August 7, 1900

2,146 56

Furnishing cement for the construction of Pier No. 10 (Howard Street Wharf No. 3). J. D. Spreckels & Bro.'s Co., contractors. Date of contract, February 20, 1900.

Contract price—2,700 barrels (more or less), \$2.87 per barrel.

Amount furnished—

April 27, 1900—440 barrels, at \$2.87 per barrel

\$1,262 80

Aug. 13, 1900—2,175 barrels, at \$2.87 per barrel

6,242 25

\$7,505 05

Paid May 14, 1900

\$1,262 80

Paid Aug. 30, 1900

6,242 45

7,505 05

Constructing a Postoffice building. Andrew Wilkie, Jr., contractor. Date of contract, March 5, 1900.

Contract price

\$23,700 00

Extra work

205 00

\$23,905 00

Paid April 12, 1900—Estimate No. 1

\$2,844 00

Paid April 26, 1900—Estimate No. 2

3,377 25

Paid May 10, 1900—Estimate No. 3

2,666 25

Paid May 24, 1900—Estimate No. 4

3,555 00

Paid June 7, 1900—Estimate No. 5

1,777 50

Paid June 21, 1900—Estimate No. 6

1,777 50

Paid April 8, 1901—Estimate No. 7

7,907 50

23,905 00

Furnishing rock for breakwaters on water front. Gray Brothers, contractors. Date of contract, March 15, 1900.

Contract price—23,500 tons rock (more or less), 59½ cents per ton.

Rock furnished—26,328⁵⁰/₁₀₀ tons, at 59½ cents per ton

\$15,665 54

Paid June 21, 1900—Estimate No. 1

\$1,162 96

Paid Aug. 9, 1900—Estimate No. 2

1,378 48

Paid Sept. 13, 1900—Estimate No. 3

2,428 00

Paid Oct. 12, 1900—Estimate No. 4

1,720 70

Paid Nov. 19, 1900—Estimate No. 5

2,038 03

Paid Dec. 6, 1900—Estimate No. 6

1,269 60

Paid Jan. 10, 1901—Estimate No. 7

765 09

Paid Feb. 12, 1901—Estimate No. 8

218 18

Paid Mar. 16, 1901—Estimate No. 9

561 43

Paid Mar. 16, 1901—Estimate No. 10

206 68

Paid Apr. 15, 1901—Estimate No. 11

3,916 39

15,665 54

Furnishing piles for six (6) months. H. R. Rood & Co., contractors.
Date of contract, March 24, 1900.

Contract price—

12 and 13 inch piles, 12½ cents per lineal foot.

14 and 15 inch piles, 14 cents per lineal foot.

16 and 17 and 18 inch piles, 15½ cents per lineal foot.

Paid June 14, 1900—Estimate No. 1, for 102 piles..... \$774 93

Paid Aug. 10, 1900—Estimate No. 2, for 85 piles..... 795 76

Paid Aug. 16, 1900—Estimate No. 3, for 127 piles..... 1,006 46

Paid Oct. 18, 1900—Estimate No. 4, for 123 piles..... 1,007 79

Paid Nov. 12, 1900—Estimate No. 5, for 23 piles..... 143 14

Paid Dec. 20, 1900—Estimate No. 6, for 255 piles..... 1,886 82

Total..... 715 piles..... \$5,614 90

Repairing spring line of dolphin between Ferry Slips Nos. 3 and 4.
Jas. A. McMahon, contractor. Date of contract, April 16, 1900.

Contract price—

Furnishing and fastening spring piles, \$22.75 per pile.

Furnishing and fastening chocks and ribbing, \$42.75 per 1,000 feet.

Amount of work done, August 21, 1900—

51 spring piles furnished and fastened, at \$22.75 per pile..... \$1,160 25

41,096 feet chocks and ribbing furnished and fastened, at \$42.75 per 1,000 feet..... 1,756 85

\$2,917 10

Paid August 23, 1900..... 2,917 10

Repairing and repiling Pier No. 5 (Jackson Street Wharf). Dundon Bridge and Construction Co., contractors. Date of contract, April 25, 1900.

Contract price—

For piles driven under shed, \$13.30 per pile.

For piles driven outside shed, \$7.50 per pile.

For lumber furnished and laid, \$23 per 1,000 feet.

Amount of work done July 17, 1900—

142 piles driven under shed, at \$13.30 per pile..... \$1,888 60

98 piles driven outside shed, at \$7.50 per pile..... 735 00

15,000 feet lumber furnished and laid, at \$23 per 1,000 feet (B. M.)..... 345 00

\$2,968 60

Paid July 19, 1900..... 2,968 60

Repairing and repiling bulkheads between Piers Nos. 3 and 5 and Nos. 5 and 7, "as per letter of agreement." Dundon Bridge and Construction Co., contractors. Date of letter of agreement, April 25, 1900.

Contract price—

For piles driven under shed, \$13.30 per pile.

For piles driven outside shed, \$7.50 per pile.

For lumber furnished and laid, \$23 per 1,000 feet.

For rebolting old piles, \$1 per pile.

Amount of work, July 24, 1900—

16 piles driven under shed, at \$13.30 per pile..... \$212 80

5 piles driven outside shed, at \$7.50 per pile..... 37 50

65,600 feet lumber furnished and laid, at \$23 per 1,000 feet (B. M.)..... 1,508 80

10 old piles rebolted, at \$1 per pile..... 10 00

\$1,769 10

Paid August 6, 1900..... 1,769 10

Repairing approach to car ferry slip at foot of Main Street. Darby Laydon, contractor. Date of contract, May 21, 1900.

Contract price—

Furnishing and driving new piles, \$9.25 per pile.

Furnishing and laying new lumber, \$19 per 1,000 feet.

Relaying old lumber, \$3 per 1,000 feet.

Amount of work done July 18, 1900—

31 piles furnished and driven, at \$9.25 per pile \$286 75

142,000 feet new lumber furnished and laid, at \$19
per 1,000 feet..... 2,698 00

1,876 feet old lumber relaid, at \$3 per 1,000 feet..... 5 63

\$2,990 38

Paid June 28, 1900 \$1,524 47

Paid July 18, 1900 1,465 92

2,990 39

(Error by Engineer, overpayment of .01c.)

Building Fishermen's Wharf. City Street Improvement Co., contractors. Date of contract, May 22, 1900.

Contract price..... \$4,127 32

Paid August 4, 1900—Estimate No. 1..... \$2,321 62

Paid August 16, 1901—Estimate No. 2..... 1,805 70

4,127 32

Shed on Pier No. 10 (Howard Street Wharf No. 3). Newsom & McNeil, contractors. Date of contract, June 6, 1900.

Contract price..... \$9,190 00

Extra work, November 7, 1900..... 191 00

\$9,381 00

Paid Sept. 20, 1900—Estimate No. 1..... \$2,894 85

Paid Oct. 12, 1900—Estimate No. 2..... 2,274 52

Paid Nov. 8, 1900—Estimate No. 3..... 4,211 63

9,381 00

Fixtures for new Postoffice building. L. & E. Emanuel, contractors. Date of contract, June 19, 1900.

Contract price..... \$2,745 00

Paid Oct. 23, 1900..... \$945 00

Paid Sept. 12, 1900..... 1,800 00

2,745 00

Spring line on south side of Lombard Street Wharf. James A. McMahon, contractor. Date of contract, June 27, 1900.

Contract price—Furnishing and driving 60 spring piles, \$16.15 per pile.

Amount of work done August 7, 1900—

60 spring piles furnished and driven, at \$16.15 per
pile..... \$969 00

5 mooring piles furnished and driven, at \$14.68 per
pile..... 73 40

245 feet extra length piling furnished and driven,
at 27 cents per foot 66 15

2 days' extra work with 7 men and driver, at \$40 per
day..... 80 00

\$1,188 55

Paid August 9, 1900..... 1,188 55

Laying block pavement in front of Union Depot and Ferry House.
Union Lumber Co., contractors. Date of contract, June 27, 1900.

Contract price, 25 cents per square foot.

Amount of work done—

July 3, 1900—5,508 square feet paved, at 25 cents per square foot.....	\$1,377 00	
July 10, 1900—733 square feet paved, at 25 cents per square foot.....	183 25	\$1,560 25
Paid July 7, 1900	\$1,377 00	
Paid July 12, 1900	183 25	1,560 25

EXHIBIT I.

CONSTRUCTION ACCOUNT No. 2.

WORK CONTRACTED FOR AND COMPLETED WITHIN THE YEARS JUNE 30, 1900, AND JULY 1, 1902.

Building an extension to ferry slip between Piers Nos. 5 and 7.
Dundon Bridge and Construction Co., contractors. Date of contract, July 26, 1900.

Contract price.....	\$842 00	
Extra work.....	12 00	\$854 00
Paid Sept. 13, 1900.....		854 00

Repiling and repairing bulkhead between Pier No. 17 and Car Ferry Slip No. 1. Hyde Construction Co., contractors. Date of contract, July 26, 1900.

Contract price—

Furnishing and driving piles under shed, \$7.20 per pile.

Furnishing and driving piles outside shed, \$6.20 per pile.

Furnishing and fastening new lumber, \$19 per 1,000 feet (B. M.).

Work done October 2, 1900—

204 piles driven under shed, at \$7.20 per pile	\$1,468 80	
52 piles driven outside shed, at \$6.20 per pile	322 40	
210,894 feet lumber used, at \$19 per 1,000 feet.....	4,006 99	
6 new shoe pieces, at \$7.50 each.....	45 00	
3 days' labor, raising wharf, at \$30 per day.....	90 00	\$5,933 19
Paid Sept. 7, 1900—Estimate No. 1.....	\$1,537 50	
Paid Oct. 5, 1900—Estimate No. 2.....	2,912 40	
Paid Nov 23, 1900—Estimate No. 3.....	1,483 29	5,933 19

Shed between Piers Nos. 5 and 7 and an office building on Section 7 of seawall. Newsom & McNeil, contractors. Date of contract, July 28, 1900.

Contract price.....	\$1,520 00	
Extra work.....	222 00	\$1,742 00
Paid Aug. 28, 1900		1,742 00

Repiling and repairing Pier No. 16 (Harrison Street Wharf). City Street Improvement Co., contractors. Date of contract, August 4, 1900.

Contract price—

Furnishing and driving piles, \$19.50 per pile.

Furnishing and fastening caps and stringers, \$35 per 1,000 feet (B. M.).

Work done Jan. 21, 1901—

120 piles furnished and driven, at \$19.50 per pile ... \$2,340 00

5,234 feet caps furnished and fastened, at \$35 per

1,000 feet. 183 19

\$2,523 19

Paid Jan. 24, 1901.

2,523 19

Laying bituminous rock pavement on East Street. San Francisco Paving Co., contractors. Date of contract, August 3, 1900.

Contract price—

Paving, $8\frac{3}{4}$ cents per square foot.

Cesspools, \$24 each.

8-inch ironstone pipe, 25 cents per foot.

Work done September 26, 1900—

15,500 sq. ft. of pavement, at $8\frac{3}{4}$ cents per sq. ft. ... \$1,356 25

10.3 cu. yds. concrete wall, at \$6 per cu. yd. 61 80

32.4 cu. yds. rubble wall, at \$3 per cu. yd. 97 20

208 lineal feet of ironstone pipe, at 25 cents per

lineal foot 52 00

3 cesspools, at \$24 each 72 00

500 sq. ft. extra paving taken up and relaid, at 6

cents per sq. ft. 30 00

9 loads sand, at \$1 per load 9 00

Extra filling, as per agreement 75 00

\$1,753 25

Paid Sept. 27, 1900

1,753 25

Replanking "Little Main Wharf." Dundon Bridge and Construction Co., contractors. Date of contract, August 11, 1900.

Contract price—

Furnishing and laying planking and stringers, \$16.05 per 1,000 feet (B. M.).

Work done November 14, 1900—

64,240 feet planking and stringers laid, at \$16.05 per 1,000 feet \$1,031 05

Paid Nov. 24, 1900 1,031 05

Shed on Pier No. 16 (Harrison Street Wharf). Fred Miller, contractor. Date of contract, August 29, 1900.

Contract price \$6,910 00

Paid Mar. 23, 1901—Estimate No. 1 \$4,405 12

Paid April 29, 1901—Estimate No. 2 777 38

Paid June 5, 1901—Estimate No. 3 1,727 50

6,910 00

Repairing "Little Mail Dock." Hyde Construction Co., contractors. Date of contract, September 19, 1900.

Contract price—

Furnishing and driving extra standard piles, \$11.40 per pile.

Work done November 7, 1900—

147 piles furnished and driven, at \$11.40 per pile \$1,675 80

Paid Nov. 8, 1900 \$1,256 85

Paid Dec. 21, 1900 418 95

1,675 80

Building an addition to Pier No. 20 (Steuart Street Wharf) and repiling and repairing the present pier. City Street Improvement Co., contractors. Date of contract, September 20, 1900.

Contract price—Addition to pier.....	\$12,998 00	
Contract price—Repiling and repairing present pier—		
Furnishing and driving piles under shed, \$10.59 per pile.		
Furnishing and driving piles outside shed, \$9.93 per pile.		
Furnishing and fastening lumber, \$20 per 1,000 feet (B. M.).		
Work done April 30, 1901—		
Addition to pier.....	\$12,998 00	
241 piles driven under present shed, at \$10.59 per pile.....	2,552 19	
111 piles driven outside present shed, at \$9.93 per pile.....	1,102 23	
201,595 feet lumber laid and fastened, at \$20 per 1,000 feet.....	403,190	
		\$20,684 32
Paid Dec. 28, 1900—Estimate No. 1.....	\$4,650 35	
Paid Mar. 14, 1901—Estimate No. 2.....	4,432 04	
Paid April 25, 1901—Estimate No. 3.....	3,969 50	
Paid May 4, 1901—Estimate No. 4.....	2,461 35	
Paid June 5, 1901—Estimate No. 5.....	5,171 08	
		20,684 32

Steam boiler on pier between Ferry Slips Nos. 3 and 4. Charles C. Moore & Co., contractors. Date of contract, October 10, 1900.

Contract price.....	\$3,429 00	
Paid Dec. 24, 1900.....	\$2,571 75	
Paid Jan. 29, 1901.....	857 25	
		3,429 00

Foundation for steam boiler on pier between Ferry Slips Nos. 3 and 4. City Street Improvement Co., contractors. Date of contract, October 10, 1900.

Contract price.....	\$1,156 13	
Paid Nov. 10, 1900.....	\$867 10	
Paid Dec. 28, 1900.....	289 03	
		1,156 13

Market building, net-house, etc., at Fishermen's Wharf. Newsom & McNeil, contractors. Date of contract, October 17, 1900.

Contract price.....	\$2,963 00	
Paid Nov. 22, 1900—Estimate No. 1.....	\$1,111 12	
Paid Dec. 13, 1900—Estimate No. 2.....	1,111 13	
Paid Jan. 17, 1901—Estimate No. 3.....	740 75	
		2,963 00

Creosoting piles for addition to Pier No. 20 (Steuart Street Wharf).
San Francisco Timber Preserving Co., contractors. Date of contract,
October 31, 1900.

Contract price: Creosoting 670 (more or less) piles—

12-inch piles, 27 cents per lineal foot.

14-inch piles, 30 cents per lineal foot.

16-inch piles, 35 cents per lineal foot.

Work done February 16, 1901—

570 piles, 29,642 feet, creosoted, at 27 cents per
lineal foot..... \$8,003 34

119 piles, 6,532 feet, creosoted, at 30 cents per
lineal foot..... 1,959 60

27 piles, 1,562 feet, creosoted, at 35 cents per
lineal foot..... 546 70

\$10,509 64

Paid Mar. 15, 1901—Estimate No. 1..... \$7,882 23

Paid Apr. 25, 1901—Estimate No. 2..... 2,627 41

10,509 64

Repiling and repairing Berry Street Wharf. Hyde Construction Co.,
contractors. Date of contract, November 14, 1900.

Contract price—

Furnishing, driving, and fastening piles, \$8.55 per pile.

Furnishing and fastening new lumber, \$19.50 per 1,000 feet (B. M.).

Relaying and fastening old lumber, \$3 per 1,000 feet (B. M.).

Pulling under and bolting old standard piles, \$1 per pile.

Work done May 21, 1901—

396 piles furnished and fastened, at \$8.55 per pile.. \$3,385 80

312,200 feet new lumber laid, at \$19.50 per 1,000 feet.. 6,087 90

27,350 feet old lumber relaid, at \$3 per 1,000 feet.... 82 05

70 old standard piles pulled under and bolted, at
\$1 per pile..... 70 00

\$9,625 75

Paid Feb. 8, 1901—Estimate No. 1..... \$2,863 13

Paid May 24, 1901—Estimate No. 2..... 4,356 18

Paid July 5, 1901—Estimate No. 3..... 2,406 44

9,625 75

Repairing south arm Second Street freight ferry slip. Hyde Con-
struction Co., contractors. Date of contract, November 14, 1900.

Contract price—

Furnishing, driving, and fastening new piles, \$11.15 per pile.

Removing, driving, and fastening old piles, \$5 per pile.

Furnishing and laying new lumber, \$20 per 1,000 feet (B. M.).

Work done December 26, 1900—

108 new piles furnished and fastened, at \$11.15 per
pile..... \$1,204 20

5 old piles driven and fastened, at \$5 per pile..... 25 00

53,825 feet new lumber furnished and laid, at \$20
per 1,000 feet..... 1,076 50

53 old piles pulled, at \$2.50 per pile..... 132 50

12 old piles pulled under and bolted, at \$1 per pile.. 12 00

Repairing approach to slip, 2½ days (scow and crew) 60 00

\$2,510 20

Paid Dec. 29, 1900..... \$1,882 65

Paid Feb. 6, 1901..... 627 55

2,510 20

Repairing dolphin between Ferry Slips Nos. 4 and 5. Atlantic, Gulf, and Pacific Co., contractors. Date of contract, November 21, 1900.

Contract price—

Driving, fitting, and fastening new piles, \$20 per pile.

Driving, fitting, and fastening old piles, \$10 per pile.

Furnishing, fitting, and fastening new lumber, \$49 per 1,000 feet (B. M.).

Work done November 29, 1900—

4 new piles furnished and driven, at \$20 per pile....	\$80 00	
8 old piles fitted and driven, at \$10 per pile.....	80 00	
1,496 feet lumber furnished and fastened, at \$49 per		
1,000 feet.....	73 30	
		\$233 30
Paid November 30, 1900.....		233 30

Constructing a shed, office building, etc., on Pier No. 20 (Steuart Street Wharf). Newsom & McNeil, contractors. Date of contract, December 19, 1900.

Contract price.....	\$15,372 00	
Addition to contract.....	1,098 50	
		\$16,470 50
Deductions from contract, office.....	\$733 50	
Deductions from contract, gates.....	230 00	
		963 50
Total amount of contract.....		\$15,507 00
Paid April 26, 1901—Estimate No. 1.....	\$5,764 50	
Paid May 9, 1901—Estimate No. 2.....	4,035 15	
Paid June 5, 1901—Estimate No. 3.....	1,589 73	
Paid July 5, 1901—Estimate No. 4.....	4,117 62	
		15,507 00

Erecting a shed on Seawall Lot No. 5. Newsom & McNeil, contractors. Date of contract, January 3, 1901.

Contract price.....	\$5,850 00	
Paid March 22, 1901—Estimate No. 1.....	\$3,071 25	
Paid April 6, 1901—Estimate No. 2.....	1,316 25	
Paid May 9, 1901—Estimate No. 3.....	1,462 50	
		5,850 00

Treating piles for Car Ferry Slips Nos. 1 and 2. H. R. Rood & Co., contractors. Date of contract, January 2, 1901.

Contract price—Treating 491 piles, 40 cents per lineal foot of pile treated.

Work done April 30, 1901—

396 piles treated (13,904 feet), at 40 cents per lineal		
foot		\$5,561 60
Paid Mar. 14, 1901—Estimate No. 1	\$1,285 20	
Paid April 30, 1901—Estimate No. 2	1,803 00	
Paid May 4, 1901—Estimate No. 3	1,083 00	
Paid June 5, 1901—Estimate No. 4	1,390 40	
		5,561 60

Treating piles for Car Ferry Slips Nos. 1 and 2. Paraffine Paint Co., contractors. Date of contract, January 3, 1901.

Contract price—Treating 491 piles, 32½ cents per lineal foot of pile treated.

Work done June 10, 1901—

402 piles treated (11,916 feet), at 32½ cents per lineal foot		\$3,872 70
Paid June 12, 1901—Estimate No. 1	\$2,904 52	
Paid July 24, 1901—Estimate No. 2	968 18	
		<u>3,872 70</u>

Creosoting piles for Car Ferry Slips Nos. 1 and 2. San Francisco Timber Preserving Co., contractors. Date of contract, January 3, 1901.

Contract price—Creosoting 1,085 piles with 10 lbs. of creosote injected:

12-inch piles, 27 cents per lineal foot of pile injected.

13-inch piles, 30 cents per lineal foot of pile injected.

14-inch piles, 33 cents per lineal foot of pile injected.

15-inch piles, 36 cents per lineal foot of pile injected.

16-inch piles, 41 cents per lineal foot of pile injected.

Work done to August, 1901—1,056 piles (66,867 feet) creosoted, at

27 to 41 cents per lineal foot		\$22,550 02
Paid June 12, 1901	\$7,217 32	
Paid July 5, 1901	4,414 91	
Paid July 24, 1901	3,877 42	
Paid Aug. 31, 1901	7,040 37	
		<u>22,550 02</u>

Erecting a shed on dolphin between Ferry Slips Nos. 5 and 6. New-som & McNeil, contractors. Date of contract, January 23, 1901.

Contract price	\$1,190 00	
Addition to contract	57 00	
		<u>\$1,247 00</u>
Paid January 31, 1901		1,247 00

Improvements on dolphin between Ferry Slips Nos. 4 and 5. Hannah Bros., contractors. Date of contract, January 30, 1901.

Contract price		\$4,849 00
Paid April 5, 1901—Estimate No. 1	\$3,636 75	
Paid May 9, 1901—Estimate No. 2	1,212 25	
		<u>4,849 00</u>

Removing the present Fishermen's Wharf and Car Ferry Slips. Robert Wakefield, contractor. Date of contract, January 30, 1901.

Contract price—All old material.

Work done according to contract.

Improvements on approach to Pier No. 7. Biller & Qualman, contractors. Date of contract, February 14, 1901.

Contract price	\$1,667 00	
Addition to contract	45 00	
		<u>\$1,712 00</u>
Paid April 18, 1901		1,712 00

Additional space for the fishermen. Healy, Tibbitts & Co., contractors. Date of contract, February 14, 1901.

Contract price.....	\$2,383 00
Paid March 28, 1901	2,383 00

Alteration of the roundhouse. Val Franz, contractor. Date of contract, February 20, 1901.

Contract price.....	\$1,680 00
Addition to contract	428 00
	<hr/>
	\$2,108 00
Paid April 11, 1901.....	2,108 00

Paving portions of East Street at foot of Vallejo Street. Flinn & Treacy, contractors. Date of contract, February 27, 1901.

Contract price—	
17¼ cents per square foot for paving with basalt blocks.	
\$95 for cesspool, complete.	
Work done April 30, 1901—	
28,227 square feet paved, at 17¼ cents per square foot.....	\$4,869 16
1 cesspool and sewer	95 00
2 extra cesspools, at \$20 each	40 00
2 days' work teaming (removing curb), at \$5 per day	10 00
	<hr/>
	\$5,014 16
Paid May 4, 1901.....	\$3,760 62
Paid July 5, 1901	1,253 54
	<hr/>
	5,014 16

Repiling and repairing Pier No. 27 (Lombard Street Wharf). Hyde Construction Co., contractors. Date of letter of agreement, January 10, 1901.

Work done March 5, 1901—	
59 piles pulled, redriven, and fastened, at \$6.50 per pile.....	\$383 50
30 piles furnished, driven, and fastened, at \$11 per pile.....	330 00
1,504 feet lumber furnished and placed, at \$10 per 1,000 feet.....	15 04
2,880 feet lumber furnished and placed, at \$15 per 1,000 feet.....	43 20
3,164 feet lumber placed, at \$4 per 1,000 feet.....	12 66
2,360 feet lumber furnished and placed, at \$30 per 1,000 feet.....	70 80
13,627 feet lumber furnished and placed, at \$20 per 1,000 feet.....	272 54
1 extra day's work of full crew preparing wharf for arrival of steamers, at \$25 per day.....	25 00
1 extra day's work furnishing 366 feet of caps, and splicing same, at \$25 per day.....	25 00
	<hr/>
	\$1,177 74
Paid March 14, 1901.....	1,177 74

Creosoting piles for repiling and repairing Pier No. 14 (Folsom Street Wharf No. 2). San Francisco Timber Preserving Co., contractors. Date of letter of agreement, January 10, 1901.

Contract price—

- 12 and 13 inch piles, 27 cents per lineal foot of pile creosoted.
- 14 and 15 inch piles, 30 cents per lineal foot of pile creosoted.
- 16 and 17 inch piles, 35 cents per lineal foot of pile creosoted.
- 18 and 19 inch piles, 42 cents per lineal foot of pile creosoted.

Work done February 16, 1901—

23 piles, 1,579 feet, creosoted, at 27 cents per lineal foot.....	\$426 33	
48 piles, 3,691 feet, creosoted, at 30 cents per lineal foot.....	1,107 30	
30 piles, 2,422 feet, creosoted, at 35 cents per lineal foot.....	847 70	
15 piles, 1,335 feet, creosoted, at 42 cents per lineal foot.....	560 70	
		\$2,942 03
Paid March 15, 1901.....		2,942 03

Repairing bulkhead at Section 3 of seawall. Robert Wakefield, contractor. Date of letter of agreement, February 18, 1901.

Work done March 7, 1901—

Furnishing, fitting, and fastening 5,184 feet (B. M.) caps, at \$30 per 1,000 feet.....	\$155 52	
Furnishing, fitting, and fastening 2,412 feet (B. M.) stringers, at \$26 per 1,000 feet.....	62 71	
Furnishing, laying, and fastening 13,440 feet (B. M.) planking, at \$20 per 1,000 feet.....	268 80	
Relaying 11,766 feet (B. M.) old lumber, at \$5 per 1,000 feet.....	58 83	
		\$545 86
Paid March 14, 1901.....		545 86

Repairs to Pier No. 4 (Mission Street Wharf No. 2) and south side Car Ferry Slips (near Lombard Street). Hyde Construction Co., contractors. Date of letter of agreement, March 4, 1901.

Work done March 27, 1901—

On Pier No. 4:

Furnishing and driving 7 cluster piles, at \$17 per pile.....	\$119 00	
Furnishing and driving 21 fender piles, at \$14 per pile.....	294 00	

On south arm of car ferry slip:

Furnishing and driving 45 cluster piles, at \$17 per pile.....	765 00	
Furnishing and fastening 4,592 feet of ribbing, at \$40 per 1,000 feet.....	183 68	
Pulling 6 stumps (old piles), at \$2 per pile.....	12 00	
		\$1,373 68
Paid April 8, 1901.....		1,373 68

Repairing Main Street Wharf. Hyde Construction Co., contractors.
Date of letter of agreement, March 13, 1901.

Work done, March 26, 1901—

Furnishing, driving, and fastening 40 fender and spring piles, at \$14.75 per pile.....	\$590 00
Paid April 8, 1901.....	590 00

Repiling and repairing Pier No. 51 (Powell Street Wharf) and Section
A, seawall. City Street Improvement Co., contractors. Date of con-
tract, April 3, 1901.

Contract price—

Furnishing and driving piles, \$11.40 per pile.

Furnishing and fastening lumber, \$18 per 1,000 feet (B. M.).

Work done July 2, 1901—

151 piles furnished and driven, at \$11.40 per pile....	\$1,721 40	
265,900 feet lumber furnished and fastened, at \$18 per 1,000 feet	4,786 20	
10 standard piles fastened, at \$1.50 per pile.....	15 00	
1 split cap strapped and bolted, at \$1.50 per cap....	1 50	
1,680 feet of lumber relaid, at \$5 per 1,000 feet.....	8 40	
1 iron ladder placed and fastened, at \$2.....	2 00	
2 mooring piles fastened, at \$1.50 per pile.....	3 00	
		\$6,537 50
Paid July 5, 1901.....	\$4,903 13	
Paid August 9, 1901	1,634 37	
		6,537 50

Fitting up office in ferry building for Howard C. Holmes. Val
Franz, contractor. Date of letter of agreement, February 19, 1901.

Contract price.....	\$200 00	
Extra work.....	19 00	
		\$219 00
Paid April 11, 1901		219 00

Three new doors, and inclosing part of north side of Pier No. 10
(Howard Street Wharf No. 3). Val Franz, contractor. Date of letter
of agreement, February 19, 1901.

Contract price.....	\$749 00
Paid, April 11, 1901.....	749 00

Platform, two offices, toilet room, and partition walls on dolphin
between Ferry Slips Nos. 4 and 5. Hannah Bros., contractors. Date of
contract, March 16, 1901.

Contract price.....	\$1,350 00
Paid April 12, 1901.....	1,350 00

Paving portions of Francisco, Montgomery, and East streets and Seawall lots Nos. 4, 5, and 6. James H. O'Brien, contractor. Date of letter of agreement, January 3, 1901.

Contract price—

Paving with cobbles, $3\frac{1}{2}$ cents per square foot.

6-inch sewer pipe, 38 cents per lineal foot.

8-inch sewer pipe, 42 cents per lineal foot.

10-inch sewer pipe, 60 cents per lineal foot.

Cesspools, \$30 each.

Work done April 9, 1901—

66,297 square feet of paving, at $3\frac{1}{2}$ cents per square foot	\$2,320 39	
200 lineal feet of 10-inch sewer pipe, at 60 cents per lineal foot	120 00	
378 lineal feet of 8-inch sewer pipe, at 42 cents per lineal foot	158 76	
60 lineal feet of 6-inch sewer pipe, at 38 cents per lineal foot	22 80	
9 cesspools, at \$30 each	270 00	
		\$2,891 95
Paid Feb. 7, 1901—Estimate No. 1	\$379 73	
Paid Mar. 27, 1901—Estimate No. 2	1,308 94	
Paid April 15, 1901—Estimate No. 3	1,203 28	
		2,891 95

Repiling and repairing bulkhead between Piers Nos. 15 and 17. Hyde Construction Co., contractors. Date of contract, April 24, 1901.

Contract price—

Furnishing and driving piles, \$7.25 per pile.

Furnishing and laying new lumber, \$19.50 per 1,000 feet (B. M.).

Work done June 4, 1901—

97 standard and fender piles, furnished and driven, at \$7.25 per pile	\$703 25	
32,305 feet new lumber, furnished and laid, at \$19.50 per 1,000 feet	629 95	
1,381 feet creosoted piles, furnished and driven, at $14\frac{1}{2}$ cents per lineal foot	200 25	
		\$1,533 45
Paid June 5, 1901		1,533 45

Additions to Piers Nos. 2 and 3 (Mission Street Wharf No. 1 and Washington Street Wharf). Darby Laydon, contractor. Date of contract, April 24, 1901.

Contract price	\$14,980 00	
Extra work, July 16, 1901 (Washington Street Wharf)	710 86	
Extra work, Nov. 30, 1901 (Mission No. 1 Wharf)	842 39	
		\$16,533 25
Paid July 18, 1901	\$710 86	
Paid Aug. 8, 1901	3,745 00	
Paid Dec. 4, 1901	842 39	
Paid Dec. 4, 1901	5,485 81	
Paid Dec. 4, 1901	3,745 00	
Paid Jan. 8, 1902	1,816 94	
Discounts	187 25	
		16,533 25

Pulling old pile stumps at Car Ferry Slip, foot of Second Street. City Street Improvement Co., contractors. Date of letter of agreement, March 11, 1901.

Contract price, \$8 per stump pulled.

Work done March 14, 1901, pulling 10 stumps, at \$8 each..... \$80 00

Paid March 21, 1901 80 00

Painting State tugs ("Gov. Irwin" and "Gov. Markham"). Frank La Faille, contractor. Date of letter of agreement, April 24, 1901.

Contract price..... \$335 00

Addition to contract 6 75

\$341 75

Paid July 5, 1901 341 75

Repairing dolphin between Ferry Slips Nos. 4 and 5 and south arm of No. 7. Hyde Construction Co., contractors. Date of contract, March 28, 1901.

Contract price—

Furnishing and driving new piles, \$21.25 per pile.

Pulling old piles, \$5 per pile.

Redriving old piles, \$3 per pile.

Furnishing and fastening new lumber, \$50 per 1,000 feet (B. M.).

Work done May 8, 1901—

44 piles furnished and driven, at \$21.25 per pile.... \$935 00

48 piles pulled, at \$5 per pile..... 240 00

7,000 feet lumber furnished and fastened, at \$50 per

1,000 feet..... 350 00

\$1,525 00

Paid May 24, 1901 1,525 00

Building an office in Ferry building. Val Franz, contractor. Date of letter of agreement, April 3, 1901.

Contract price..... \$195 00

Addition to contract 74 00

\$269 00

Paid April 25, 1901..... 269 00

Repairing southerly section of Section No. 3, Seawall. Robert Wakefield, contractor. Date of contract, February 18, 1901.

Contract price—

Furnishing and fastening caps, \$30 per 1,000 feet (B. M.).

Furnishing and fastening compound stringers, \$26 per 1,000 feet (B. M.).

Furnishing and fastening planking and stringers, \$20 per 1,000 feet (B. M.).

Relaying old planking, \$5 per 1,000 feet (B. M.).

Furnishing and driving 60 piles, \$8 per pile.

Work done May 7, 1901—

10,044 feet caps furnished and fastened, at \$30 per

1,000 feet..... \$301 32

2,088 feet compound stringers furnished and

fastened, at \$26 per 1,000 feet..... 54 29

70,984 feet planking and stringers furnished and

fastened, at \$20 per 1,000 feet..... 1,419 68

25,514 feet old planking relaid and fastened, at \$5

per 1,000 feet..... 127 57

60 piles driven, furnished, and fastened, at \$8

per pile..... 480 00

\$2,382 86

Paid May 9, 1901..... 2,382 86

Preserving piles for additions to Piers Nos. 2 and 3. H. R. Rood & Co., contractors. Date of contract, May 8, 1901.

Contract price—40 cents per lineal foot of pile preserved.

Work done August 28, 1901—

14,553 feet of piles preserved, at 40 cents per lineal foot.....	\$5,821 20
Paid Dec. 4, 1901	\$1,164 24
Paid Feb. 28, 1902	1,746 36
Paid May 28, 1902	2,910 60
	<hr/> 5,821 20

Creosoting piles for additions to Piers Nos. 2 and 3. San Francisco Timber Preserving Co, contractors. Date of contract, May 8, 1901.

Contract price—

12-inch piles, 28½ cents per lineal foot of pile creosoted.

13-inch piles, 31½ cents per lineal foot of pile creosoted.

14-inch piles, 34½ cents per lineal foot of pile creosoted.

15-inch piles, 37½ cents per lineal foot of pile creosoted.

16-inch piles, 42½ cents per lineal foot of pile creosoted.

Work done October 25, 1901—

3 13-inch piles, 252 feet, creosoted, at 31½ cents per lineal foot.....	\$79 38
27 14-inch piles, 2,323 feet, creosoted, at 34½ cents per lineal foot.....	801 43
30 15-inch piles, 2,631 feet, creosoted, at 37½ cents per lineal foot.....	986 62
18 16-inch piles, 1,613 feet, creosoted, at 42½ cents per lineal foot.....	685 52
11 17-inch piles, 1,006 feet, creosoted, at 47½ cents per lineal foot.....	477 85
15 18-inch piles, 1,302 feet, creosoted, at 52½ cents per lineal foot.....	683 55
	<hr/> \$3,714 35
104 9,127 feet. Discount.....	106 78
	<hr/> \$3,607 57
Paid November 20, 1901.....	3,607 57

Repiling and repairing wharves with scow driver. S. D. LeClair, contractor. Date of contract, May 29, 1901.

Contract price—

Driving and fastening piles, \$3 per pile.

Fitting and fastening lumber, \$5 per 1,000 feet.

Work done June 30, 1901	\$793 58
Work done July 31, 1901.....	669 52
	<hr/> \$1,463 10
Paid July 5, 1901.....	\$793 58
Paid Aug. 6, 1901	669 52
	<hr/> 1,463 10

Wire gates for waiting rooms in Passenger Depot. West Coast Wire and Iron Works, contractors. Date of letter of agreement, May 6, 1901.

Contract price for three gates	\$159 39
Paid July 5, 1901.....	159 39

Office building at Pier No. 16. Hannah Bros., contractors. Date of letter of agreement, May 27, 1901.

Contract price.....	\$274 00
Paid July 5, 1901.....	274 00

Dredging in scows. Pacific Dredging and Reclamation Co., contractors. Date of contract, May 22, 1901.

Contract price—10½ cents per cubic yard.	
Work done July 1, 1901—	
32,900 cubic yards dredged, at 10½ cents per cubic yard.....	\$3,454 50
Paid June 12, 1901.....	\$1,900 50
Paid Oct. 14, 1901.....	1,554 00
	<hr/> 3,454 50

Repairing Pier No. 1 (Clay Street Wharf). Healy, Tibbitts & Co., contractors. Date of letter of agreement, June 19, 1901.

Contract price.....	\$500 00
Paid July 5, 1901.....	500 00

Repiling and repairing wharves along Bryant Street, between Main and Beale Streets. City Street Improvement Co., contractors. Date of contract, June 19, 1901.

Contract price—	
Furnishing and driving piles, \$11.40 per pile.	
Furnishing and fastening lumber, \$19.30 per 1,000 feet (B. M.).	
Work done December 18, 1901—	
293 piles furnished and driven, at \$11.40 per pile...	\$3,340 20
184,445 feet lumber furnished and laid, at \$19.30 per	
1,000 feet	3,559 79
7 extra cluster piles, at \$20 per pile.....	140 00
	<hr/> \$7,039 99
Paid Nov. 2, 1901—Estimate No. 1.....	\$1,943 85
Paid Dec. 18, 1901—Estimate No. 2.....	3,336 14
Paid Jan. 22, 1902—Estimate No. 3.....	1,760 00
	<hr/> 7,039 99

Office and storehouse on dolphin between Ferry Slips Nos. 2 and 3. Hannah Bros., contractors. Dates of informal bids:

April 15, 1901.....	\$384 00
June 22, 1901.....	130 00
Nov. 22, 1901.....	250 00
	<hr/> \$764 00
Paid Dec. 11, 1901.....	764 00

Gates on Pier No. 20 (Steuart Street Wharf). James Young, contractor. Date of contract, June 19, 1901.

Contract price.....	\$605 00
Paid Sept. 13, 1901.....	605 00

Repiling and repairing the following wharves, viz., Mission Nos. 1 and 2, Howard Nos. 1 and 2, Harrison, Spear, and Main Street wharves. Hyde Construction Co., contractors. Date of contract, July 3, 1901.

Contract price—

Furnishing and fastening new piles, \$15 per pile.

Furnishing and fastening new lumber, \$22 per 1,000 feet.

Amount of work November 5, 1901—

119 piles furnished and fastened, at \$15 per pile----	\$1,785 00	
34 piles rebolted, at \$1.50 per pile-----	51 00	
28 piles pulled, at \$3 per pile-----	84 00	
19 piles redriven, at \$3 per pile-----	57 00	
25,122 feet lumber furnished and fastened, at \$22 per 1,000 feet-----	552 68	\$2,529 68
Paid March 7, 1902-----		2,529 68

Repiling and repairing bulkheads between Piers Nos. 9 and 11. Hyde Construction Co., contractors. Date of contract, July 3, 1901.

Contract price—

Furnishing and driving piles, \$10 per pile.

Furnishing and laying lumber, \$20 per 1,000 feet.

Work done January 8, 1902—

132 piles furnished and driven, at \$10 per pile-----	\$1,320 00	
76,000 feet lumber furnished and laid, at \$20 per 1,000 feet-----	1,520 00	

Additional work done, as per agreement—

26,862 feet lumber furnished and laid, at \$20 per 1,000 feet-----	537 24	
6,024 feet lumber (redwood) furnished and laid, at \$28 per 1,000 feet-----	168 67	
205 feet (lineal) piling creosoted, at 15 cents per lineal foot-----	32 25	
Moving scale house-----	20 00	\$3,598 16
Paid January 8, 1902-----	\$2,840 00	
Paid January 8, 1902-----	758 16	3,598 16

Addition to "Little Main Wharf." Atchison, Topeka & Santa Fé Railway Co., contractors. Date of contract, September 4, 1901.

Contract price-----	\$4,500 00
Lease executed, in payment for the work, for a term of five years, to the Atchison, Topeka & Santa Fé Railway Co.	

Water tank for State Dredger No. 2. Hay & Wright, contractors. Date of contract, September 11, 1901.

Contract price-----	\$1,295 00
Paid October 4, 1901-----	1,295 00

For repiling and repairing wharves with a scow driver. S. D. LeClair, contractor. Date of contract, October 23, 1901.

Contract price—

Fastening and fitting lumber, \$6 per 1,000 feet.

Driving and fastening piles, \$3.50 per pile.

Refastening old piles, \$1 per pile.

Holding-up posts under sheds, \$3 per post.

Paid Dec. 4, 1901—Work done November, 1901.....	\$916 51	
Paid Jan. 10, 1902—Work done December, 1901.....	938 16	
Paid Feb. 6, 1902—Work done January, 1902.....	943 51	
Paid Mar. 7, 1902—Work done February, 1902.....	945 24	
Paid April 5, 1902—Work done March, 1902.....	954 55	
Paid May 9, 1902—Work done April, 1902.....	1,251 01	
Paid June 5, 1902—Work done May, 1902.....	1,247 90	
		\$7,196 88

Repiling and repairing Main Street Wharf. Hyde Construction Co., contractors. Date of special agreement, October 28, 1901.

Contract price—

Furnishing and driving piles, \$15 per pile.

Furnishing and laying lumber, \$22 per 1,000 feet.

Work done November 5, 1901—

92 piles furnished and driven, at \$15 per pile..... \$1,380 00

3,064 feet lumber furnished and laid, at \$22 per 1,000

feet..... 67 41

\$1,447 41

Paid March 7, 1902..... 1,447 41

Constructing sheds over aprons at Car Ferry Slips Nos. 1 and 2. Fred Miller, contractor. Date of contract, November 7, 1901.

Contract price.....	\$3,136 00	
Addition to contract.....	19 00	
		\$3,155 00
Paid Jan. 4, 1902.....	\$2,366 25	
Paid Feb. 5, 1902.....	788 75	
		3,155 00

Repiling and repairing Pier No. 17 (Union Street Wharf). Dundon Bridge and Construction Co., contractors. Date of contract, November 13, 1901.

Contract price—

Furnishing and driving piles, \$15.25 per pile.

Furnishing and laying lumber, \$22.35 per 1,000 feet (B. M.).

Work done April 16, 1902—

392 piles furnished and driven, at \$5.25 per pile.... \$5,978 00

243,687 feet lumber furnished and laid, at \$22.35

per 1,000 feet..... 5,446 40

\$11,424 40

Paid Feb. 12, 1902..... \$5,709 00

Paid April 16, 1902..... 2,859 30

Paid May 21, 1902..... 2,856 10

11,424 40

Addition to shed over Pier No. 2 (Mission Street Wharf No. 1), and over Pier No. 3 (Washington Street Wharf). Chas. C. Horton, contractor. Date of contract, December 11, 1901.

Contract price.....		\$5,893 00
Paid Jan. 29, 1902—Estimate No. 1.....	\$1,325 93	
Paid March 12, 1902—Estimate No. 2.....	1,767 90	
Paid April 16, 1902—Estimate No. 3.....	1,325 92	
Paid May 21, 1902—Estimate No. 4.....	1,473 25	
		5,893 00

Repairing Pier No. 14 (Folsom Street Wharf No. 2). R. Duns-
muir's Sons Co., contractors. Date of contract, December 11, 1901.

Contract price.....	\$2,430 00
Paid March 5, 1902.....	2,430 00

Repairs to Second Street Wharf, Hay Wharf, Harrison Street Wharf,
and Steuart Street Wharf. Hyde Construction Co., contractors. Date
of letter of agreement, November 20, 1901.

Contract price—

Furnishing and driving fender piles, \$15 per pile.

Furnishing and fastening new lumber, \$22 per 1,000 feet.

Work done December 26, 1901—

Second Street Wharf:

13 fender piles furnished and driven, at \$15 per pile.....	\$195 00	
10 old piles rebolted, at \$1.50 per pile.....	15 00	
7 old piles pulled, at \$5 per pile.....	35 00	
		\$245 00

Hay Wharf:

69 fender piles furnished and driven, at \$15 per pile.....	\$1,035 00	
35 old piles rebolted, at \$1.50 per pile.....	52 50	
3,848 feet lumber furnished and fastened, at \$22 per 1,000 feet.....	84 66	
		1,172 16

Harrison Street Wharf:

20 brace piles driven and fastened, at \$10 per pile.....	\$200 00	
8 piles furnished, driven, and fastened, at \$20 per pile.....	160 00	
1 pile rebolted, at \$1.50 per pile.....	1 50	
1 man one half day sawing fender piles, at \$4 per day.....	2 00	
604 feet lumber furnished and fastened, at \$22 per 1,000 feet.....	13 29	
		376 79

Steuart Street Wharf:

4 piles (3 mooring, 1 fender) furnished and driven, at \$15 per pile.....	\$60 00	
64 feet lumber furnished and fastened, at \$22 per 1,000 feet.....	2 11	
		62 11

\$1,856 06

Paid Jan. 4, 1902..... 1,856 06

Repiling and repairing north side of Pier No. 14 (Folsom Street Wharf No. 2). Healy, Tibbitts & Co., contractors. Date of contract, November 27, 1901.

Contract price—

Furnishing and driving piles, \$18 per pile.

Furnishing and placing lumber, \$16.50 per 1,000 feet.

Work done March 11, 1902—

94 piles furnished and fastened, at \$18 per pile..... \$1,692 00

77,000 feet lumber furnished and fastened, at \$16.50
per 1,000 feet 1,270 50

\$2,962 50

Paid Feb. 27, 1902—Estimate No. 1..... \$1,509 75

Paid Mar. 12, 1902—Estimate No. 2..... 712 13

Paid June 25, 1902—Estimate No. 3..... 740 62

2,962 50

Extra work at Main Street Wharf. Hyde Construction Co., contractors. Date of letter of agreement, October 23, 1901.

Work done—

111 piles furnished and fastened, at \$15 per pile.... \$1,665 00

39,300 feet lumber furnished and fastened, at \$22
per 1,000 feet..... 864 60

\$2,529 60

Paid Dec. 4, 1901..... 2,529 60

Repiling and repairing Fremont Street Wharf. Hyde Construction Co., contractors. Date of contract, July 3, 1901.

Contract price—

Furnishing and driving new piles, \$15 per pile.

Furnishing and laying lumber, \$22 per 1,000 feet.

Work done January 15, 1902—

161 piles furnished and fastened, at \$15 per pile ... \$2,415 00

14,106 feet lumber furnished and placed, at \$22 per
1,000 feet 310 33

\$2,725 33

Paid Jan. 20, 1902..... \$2,044 00

Paid Mar. 5, 1902..... 681 33

2,725 33

Preserving piles for Fremont Street Wharf. H. R. Rood & Co., contractors. Date of contract, January 11, 1902.

Contract price—

40 cents per lineal foot of pile preserved.

Work done January 17, 1902—

75 piles (1,621 feet) preserved, at 40 cents per lineal foot \$648 40

Paid January 22, 1902 648 40

Repairing break at Fremont Street Wharf. Hyde Construction Co., contractors. Date of letter of agreement, February 7, 1902.

Contract price—

New piles furnished and driven, \$15 per pile.

New lumber furnished and fastened, \$25 per 1,000 feet.

Old piles driven and fastened, \$5 per pile.

Work done February 19, 1902—

7 piles pulled, at \$2.50 per pile..... \$17 50

8 piles pulled and redriven, at \$5 per pile..... 40 00

7 piles furnished and driven, at \$15 per pile..... 105 00

5 piles rebolted at \$1.50 per pile..... 7 50

1,772 feet (B. M.) lumber furnished and fastened,
at \$25 per 1,000 feet..... 44 30

Wire rope and staples..... 7 00

\$221 30

Paid February 27, 1902.....

221 30

Repairing Folsom Street Wharf No. 2. Healy, Tibbitts & Co., contractors. Date of letter of agreement, February 8, 1902.

Work done March 11, 1902—

16 brace piles driven and fastened, at \$10 per pile.. \$160 00

24 new piles furnished, driven, and fastened, at
\$16.50 per pile..... 396 00

15 old piles blocked up and fastened, at \$1.50 per
pile..... 22 50

41,652 feet new lumber laid and fastened, at \$21 per
1,000 feet..... 874 69

20,024 feet old lumber relaid and fastened, at \$5 per
1,000 feet..... 100 12

\$1,553 31

Paid March 12, 1902.....

1,553 31

Placing double stringers on north side of coal bunkers at Folsom Street Wharf No. 2. R. Dunsmuir's Sons Co., contractors. Date of letter of agreement, February 10, 1902.

Contract price—\$46 per 1,000 feet (B. M.) of lumber used.

Work done, April 1, 1902—

25,512 feet lumber furnished and laid, at \$46 per 1,000
feet..... \$1,035 55

19,528 feet lumber refitted and refastened, at \$6 per
1,000 feet..... 117 17

34 cap dogs furnished and fastened, at \$1 each..... 34 00

\$1,186 72

Paid April 2, 1902.....

1,186 72

Repiling and repairing Fremont Street Wharf. Hyde Construction Co., contractors. Dates of letters of agreement, January 9 and 25, 1902.

Contract price—

Furnishing and driving piles, \$13 per pile.

Furnishing and laying lumber, \$20 per 1,000 feet.

Work done, March 18, 1902—

89 piles furnished and driven, at \$13 per pile..... \$1,157 00

12 piles creosoted and driven, at \$20 per pile..... 240 00

80,400 feet lumber furnished and laid, at \$20 per 1,000
feet..... 1,608 00

\$3,005 00

Paid March 19, 1902..... \$1,397 00

Paid March 19, 1902..... 1,608 00

3,005 00

Repairing Washington and Main Street wharves. Hyde Construction Co., contractors. Date of letter of agreement, March 5, 1902.

Work done March 26, 1902—

Washington Street Wharf:

10 spring piles furnished and fastened, at \$15 per pile.....	\$150 00
6 fender piles furnished and fastened, at \$15 per pile.....	90 00
10 standard piles furnished and fastened, at \$15 per pile.....	150 00
2 apron piles furnished and fastened, at \$30 per pile.....	60 00
18 old piles rebolted, at \$1.50 per pile.....	27 00
1,024 feet lumber furnished and fastened, at \$25 per 1,000 feet.....	25 60

Main Street Wharf:

3 cluster piles furnished and fastened, at \$15 per pile.....	45 00
5 fender piles, extra long, furnished and fastened, at \$17 per pile.....	85 00
1 standard pile, extra long, furnished and fastened, at \$17 per pile.....	17 00
1 old pile rebolted, at \$1.50 per pile.....	1 50

\$651 10

Paid April 2, 1902 651 10

Repairing Mission Street Wharf No. 1. Hyde Construction Co., contractors. Date of letter of agreement, May 20, 1902.

Work done April 9, 1902—

7 standard piles (furnished by the Board) driven, at \$5 per pile.....	\$35 00
49 fender piles furnished and fastened, at \$14 per pile.....	686 00
8 old piles rebolted, at \$1.50 per pile.....	12 00
2,448 feet chocks fitted and fastened, at \$30 per 1,000 feet.....	73 44

\$806 44

Paid April 9, 1902 806 44

Paving Lombard Street, between Sansome and East Streets. City Street Improvement Co., contractors. Date of letter of agreement, December 4, 1901.

Work done March 25, 1902—

6,908 square feet basalt block pavement, at 22½ cents per square foot.....	\$1,554 30
1½ cesspools, at \$40 each.....	66 66
30 lineal feet 10-inch ironstone sewer pipe, at 60 cents per lineal foot.....	18 00
74 lineal feet 6-inch ironstone sewer pipe, at 50 cents per lineal foot.....	37 00
246 lineal feet old curb taken up, graded, and relaid, at 20 cents per lineal foot.....	49 20
1,600 square feet basalt block pavement relaid, at 3½ cents per lineal foot.....	56 00

\$1,781 16

Paid April 2, 1902 1,781 16

Repairing approach to Pier No. 17 (Union Street Wharf No. 1). Dundon Bridge and Construction Co., contractors. Date of letter of agreement, March 15, 1902.

Work done April 16, 1902—

19 piles furnished and fastened, at \$11.50 per pile...	\$218 50	
27,994 feet lumber furnished and fastened, at \$22.35 per 1,000 feet.....	625 67	
		\$844 17

Paid April 16, 1902	844 17
---------------------------	--------

Repairing bulkhead between Piers Nos. 19 and 21. Robert Wakefield, contractor. Date of letter of agreement, April 12, 1902.

Work done April 29, 1902—

24 piles driven and fastened, at \$5 per pile.....	\$120 00	
973 feet piling furnished at 15 cents per foot.....	145 95	
18,185 feet lumber furnished and fastened, at \$22 per 1,000 feet.....	400 07	
3,700 feet compound stringers furnished and fastened, at \$30 per 1,000 feet.....	111 00	
		\$777 02

Paid April 30, 1902	777 02
---------------------------	--------

Repairing Pier No. 15 (Green Street Wharf). Dundon Bridge and Construction Co., contractors. Dates of letters of agreement, April 2 and 10, 1902.

Work done May 6, 1902—

76 piles driven and fastened, at \$5.50 per pile.....	\$418 00	
12,570 feet caps, compound stringers, and chocks furnished and fastened, at \$25 per 1,000 feet.....	326 82	
20,730 feet intermediate stringers and planking furnished and fastened, at \$22 per 1,000 feet.....	456 06	
		\$1,200 88

Paid May 7, 1902	1,200 88
------------------------	----------

Repairing Pier No. 27 (Lombard Street Wharf). Hyde Construction Co., contractors. Date of letter of agreement, April 1, 1902.

Work done May 6, 1902—

62 piles furnished and driven, at \$16.50 per pile...	\$1,023 00	
30 old piles rebolted, at \$1.50 per pile.....	45 00	
59,616 feet lumber furnished and fastened, at \$22 per 1,000 feet.....	1,311 55	
		\$2,379 55

Paid May 7, 1902	2,379 55
------------------------	----------

Repairing bulkhead in front of Pier No. 25. Robert Wakefield, contractor. Date of letter of agreement, April 12, 1902.

Work done, May 6, 1902—

52 piles, furnished and driven, at \$9.50 per pile.....	\$494 00	
58,932 feet lumber, furnished and fastened, at \$22 per 1,000 feet.....	1,297 60	
Labor removing scale house.....	14 00	
		\$1,805 60

Paid May 7, 1902	1,805 60
------------------------	----------

Planking driveway on Pier No. 21 (Filbert Street Wharf). Robert Wakefield, contractor. Date of letter of agreement, April 12, 1902.

Work done May 6, 1902—

86,400 feet planking, furnished and laid, at \$21.50	
per 1,000 feet	\$1,857 60
Paid May 7, 1902	1,857 60

Repairing outer end of Pier No. 15 (Green Street Wharf). Dundon Bridge and Construction Co., contractors. Date of letter of agreement, March 15, 1902.

Work done May 13, 1902—

26 piles, furnished and fastened, at \$15.60 per pile..	\$405 60
900 feet lumber, furnished and fastened, at \$22.35	
per 1,000 feet	20 12
35 piles, rebolted, at \$1.50 per pile	52 50
	<hr/>
	\$478 22
Paid May 14, 1902	478 22

Repairing Pier No. 27 (Lombard Street Wharf). Hyde Construction Co., contractors. Date of letter of agreement, May 7, 1902.

Work done May 27, 1902—

80 piles, furnished and fastened, at \$16.50 per pile..	\$1,320 00
29,800 feet lumber, furnished and fastened, at \$22	
per 1,000 feet	655 60
2 shed posts raised, at \$3 each	6 00
	<hr/>
	\$1,981 60
Paid May 28, 1902	1,981 60

Repiling and repairing a portion of Pier No. 27 (Lombard Street Wharf). Hyde Construction Co., contractors. Date of letter of agreement, May 21, 1902.

Work done June 2, 1902—

65 piles, furnished and fastened, at \$16.50 per pile..	\$1,072 50
9,904 feet lumber, furnished and fastened, at \$22 per	
1,000 feet	217 89
2 shed posts raised, at \$3 each	6 00
	<hr/>
	\$1,296 39
Paid June 4, 1902	1,296 39

Repairing Union Street sewer. Flinn & Treacy, contractors. Date of letter of agreement, May 5, 1902.

Work done June 18, 1902—

268 lineal feet of sewer built, at \$4.90 per lineal foot	\$1,313 20
Paid June 18, 1902	1,313 20

EXHIBIT J.

CONSTRUCTION ACCOUNT No. 3.

WORK CONTRACTED FOR SINCE JUNE 30, 1900, BUT NOT YET COMPLETED.

Building Car Ferry Slips Nos. 1 and 2 (north of Pier No. 27). Robert Wakefield, contractor. Date of contract, November 28, 1900.

Contract price	\$72,995 00	
Addition to contract, October 1, 1901.....	506 40	
		\$73,501 40
Paid Mar. 14, 1901	\$3,017 27	
Paid April 4, 1901	3,248 06	
Paid May 9, 1901	3,953 97	
Paid June 12, 1901	2,189 85	
Paid July 24, 1901	2,189 85	
Paid Oct. 12, 1901	506 40	
Paid Oct. 12, 1901	3,643 75	
Paid Oct. 12, 1901	3,597 76	
Paid April 24, 1902	3,649 75	
		25,996 66

Constructing Union Street Wharf No. 2 (Pier No. 19). Robert Wakefield, contractor. Date of contract, November 28, 1900.

Contract price	\$61,789 00	
Addition to contract, October 1, 1901.....	741 12	
		\$62,530 12
Paid April 4, 1901	\$2,227 02	
Paid June 12, 1901	3,053 58	
Paid Oct. 12, 1901	1,747 28	
Paid Oct. 12, 1901	741 12	
Paid Nov. 13, 1901	2,858 36	
Paid Jan. 8, 1902	2,471 56	
Paid April 8, 1902	3,089 45	
		16,188 37

Constructing Filbert Street Wharf (Pier No. 21). Robert Wakefield, contractor. Date of contract, November 28, 1900.

Contract price	\$64,893 00	
Addition to contract, March 3, 1902	807 75	
		\$65,700 75
Paid Nov. 28, 1901	\$3,893 58	
Paid Jan. 29, 1902	6,489 30	
Paid Mar. 12, 1902	807 75	
Paid April 16, 1902	2,554 80	
		13,745 43

Constructing Pier No. 23 (Greenwich Street Wharf No. 1). Robert Wakefield, contractor. Date of contract, November 28, 1900.

Contract price	\$63,975 00	
Addition to contract, April 29, 1902	706 50	
		\$64,681 50
Paid March 5, 1902	\$3,838 50	
Paid May 7, 1902	3,838 50	
Paid June 4, 1902	2,559 00	
Paid June 4, 1902	706 50	
		10,942 50

Constructing Pier No. 25 (Greenwich Street Wharf No. 2). Robert Wakefield, contractor. Date of contract, November 28, 1900.

Contract price.....	\$63,195 00	
Addition to contract, June 3, 1902.....	908 55	
		\$64,103 55
Paid June 4, 1902.....	\$1,895 85	
Paid June 4, 1902.....	908 55	
Paid June 25, 1902.....	1,895 85	
		4,700 25

Furnishing cement for Car Ferry Slips Nos. 1 and 2 and Piers Nos. 19, 21, 23, and 25. H. M. Newhall & Co., contractors. Date of contract, June 3, 1901.

Contract price, \$12.32 per ton of 2,000 lbs.

Amount furnished—

Aug. 22, 1901.....	214 $\frac{848}{2000}$ tons.	Paid Oct. 14, 1901.....	\$2,641 70
Nov. 26, 1901.....	150 tons.	Paid Nov 29, 1901.....	1,848 00
Jan. 6, 1902.....	212 $\frac{1662}{2000}$ tons.	Paid Jan. 8, 1902.....	2,622 08
Jan. 15, 1902.....	124 $\frac{1200}{2000}$ tons.	Paid Jan. 20, 1902.....	1,535 07
Feb. 10, 1902.....	181 $\frac{700}{2000}$ tons.	Paid Feb. 19, 1902.....	2,234 66
Mar. 19, 1902.....	100 tons.	Paid April 2, 1902.....	1,232 00
Mar. 31, 1902.....	76 $\frac{1880}{2000}$ tons.	Paid April 9, 1902.....	947 78
April 9, 1902.....	100 tons.	Paid April 16, 1902.....	1,232 00
April 21, 1902.....	100 tons.	Paid April 30, 1902.....	1,232 00
May 31, 1902.....	100 tons.	Paid June 4, 1902.....	1,232 00
June 9, 1902.....	100 tons.	Paid June 18, 1902.....	1,232 00
June 16, 1902.....	99 $\frac{1600}{2000}$ tons.	Paid June 25, 1902.....	1,229 54
	1,559 $\frac{1241}{2000}$ tons.		\$19,218 83

Repiling and repairing spring lines and clusters at Ferry Slips Nos. 1, 5, 6, and 7. Healy, Tibbitts & Co., contractors. Date of contract, April 24, 1901.

Contract price—

Furnishing, driving, and fastening piles, \$15.50 per pile.

Furnishing and placing new lumber, \$39 per 1,000 feet.

Work done and accepted—

1,104 piles driven and fastened, at \$15.50 per pile....	\$17,112 00	
145,331 feet lumber furnished and fastened, at \$39		
per 1,000 feet.....	5,667 90	
		\$22,779 90
Paid July 24, 1901.....	\$1,766 69	
Paid Nov. 20, 1901.....	7,640 52	
Discount.....	146 00	
Paid Dec. 4, 1901.....	1,766 69	
Paid Jan. 22, 1902.....	1,706 05	
Paid Feb. 12, 1902.....	1,081 74	
Discount.....	20 66	
Paid, Mar. 4, 1902.....	1,766 70	
Paid April 22, 1902.....	1,706 05	
Paid June 4, 1902.....	1,766 70	
		19,367 80

Treating spring and cluster piles for Ferry Slips Nos. 1, 5, 6, and 7. San Francisco Timber Preserving Co., contractors. Date of contract, April 17, 1901.

Contract price—

- 12-inch piles with 10 lbs. creosote injected, 27 cents per lineal foot.
- 13-inch piles with 10 lbs. creosote injected, 30 cents per lineal foot.
- 14-inch piles with 10 lbs. creosote injected, 33 cents per lineal foot.
- 15-inch piles with 10 lbs. creosote injected, 36 cents per lineal foot.
- 16-inch piles with 10 lbs. creosote injected, 41 cents per lineal foot.

Amount of work accepted, December 10, 1901—

67 piles, 13-inch butts, 4,271 feet, creosoted, at 30 cents per lineal foot	\$1,281 30
244 piles, 14-inch butts, 15,828 feet, creosoted, at 33 cents per lineal foot	5,223 24
245 piles, 15-inch butts, 15,815 feet, creosoted, at 36 cents per lineal foot	5,693 40
96 piles, 16-inch butts, 6,170 feet, creosoted, at 41 cents per lineal foot	2,529 70
12 piles, 17-inch butts, 777 feet, creosoted, at 46 cents per lineal foot	357 42
1 pile, 18-inch butt, 63 feet, creosoted, at 51½ cents per lineal foot	33 07
	<hr/> \$15,118 13
Paid March 11, 1902	3,023 63

Car Ferry Slip at foot of Fourth Street. Atchison, Topeka & Santa Fé Railroad Co., contractors. Date of contract, June 28, 1901.

Contract price..... \$60,000 00

Creosoting piles for repiling and repairing Pier No. 17 (Union Street Wharf). San Francisco Timber Preserving Co., contractors. Date of contract, October 30, 1901.

Contract price—

- 12-inch piles, 10lbs. creosote injected, 27 cents per lineal foot of pile creosoted.
- 13-inch piles, 10 lbs. creosote injected, 30 cents per lineal foot of pile creosoted.
- 14-inch piles, 10lbs. creosote injected, 33 cents per lineal foot of pile creosoted.
- 15-inch piles, 10lbs. creosote injected, 36 cents per lineal foot of pile creosoted.
- 16-inch piles, 10lbs. creosote injected, 41 cents per lineal foot of pile creosoted.
- 17-inch piles, 10lbs. creosote injected, 46 cents per lineal foot of pile creosoted.

Work done March 13, 1902—

163 12-inch piles, 10,071 feet, creosoted, at 27 cents per lineal foot	\$2,719 17
110 13-inch piles, 6,916 feet, creosoted, at 30 cents per lineal foot	2,074 80
1 14-inch pile, 65 feet, creosoted, at 33 cents per lineal foot	21 45
3 16-inch piles, 177 feet, creosoted, at 41 cents per lineal foot	72 57
6 17-inch piles, 361 feet, creosoted, at 47 cents per lineal foot	169 67
1 18-inch pile, 61 feet, creosoted, at 53 cents per lineal foot	32 33
	<hr/> \$5,089 99
Paid June 12, 1902	1,696 66

Dredging a part of Channel Street. Atlantic, Gulf, and Pacific Co., contractors. Date of contract, January 11, 1902.

Contract price..... \$13,947 00
 Paid February 19, 1902..... 3,486 75

Reconstructing Pier No. 9 (Broadway Wharf No. 1). Hyde Construction Co., contractors. Date of contract, January 14, 1902.

Contract price..... \$73,770 00

Repiling and repairing north side Channel Street Wharf. Healy, Tibbitts & Co., contractors. Date of contract, January 22, 1902.

Contract price—

Furnishing and fastening piles, \$9.50 per pile.

Furnishing materials and labor for splicing piles, \$1.35 per pile.

Furnishing and placing new lumber, \$18 per 1,000 feet (B. M.).

Work done April 2, 1902—

235 piles furnished and fastened, at \$9.50 per pile.. \$2,232 50

5 standard piles and 4 fender piles redriven, at \$6

per pile..... 54 00

35 standard piles spliced, at \$1.35 per pile..... 47 25

66 standard piles sawed off—6 days' work, at \$4 per

day..... 24 00

816 feet extra length of piling, at 15 cents per foot.. 122 40

207,650 feet lumber furnished and placed, at \$18 per

1,000 feet..... 3,737 70

Hanging cap and furnishing 3 26-inch bolts..... 5 00

\$6,222 85

Paid April 2, 1902..... 1,555 72

Constructing building on bulkhead between Piers Nos. 9 and 11. Fred Miller, contractor. Date of contract, February 12, 1902.

Contract price..... \$7,387 00

Extra work May 2, 1902..... 32 50

\$7,419 50

Paid Mar. 28, 1902—Estimate No. 1..... \$1,108 05

Paid May 7, 1902—Estimate No. 2..... 738 70

Paid May 7, 1902—Extra work..... 32 50

1,879 25

Constructing a clam-shell dredger. J. H. Bruce, contractor. Date of contract, March 19, 1902.

Contract price..... \$37,400 00

Repairing the Fishermen's breakwater at Section B of Seawall. Coast Construction Co., contractors. Date of contract, April 30, 1902.

Contract price..... \$2,940 00

Repairing the spring fender line at Pier No. 7 (Pacific Street Wharf). Jas. A. McMahon, contractor. Date of contract, April 30, 1902.

Contract price—

Furnishing and driving piles, \$16.50 per pile.

Furnishing and fastening lumber, \$35.30 per 1,000 feet.

Furnishing 43 car springs, \$8.20 per spring.

Repiling and repairing the wharf along Section No. 1 and Section No. 2, Seawall. Darby Laydon, contractor. Date of contract, May 23, 1902.

Contract price—

Furnishing and driving piles, \$7.85 per pile.

Furnishing and fastening lumber, \$18.55 per 1,000 feet.

Repiling and repairing Pier No. 6 (Howard Street Wharf No. 1).
Darby Laydon, contractor. Date of contract, May 23, 1902.

Contract price—

Furnishing and driving piles, \$12 per pile.

Furnishing and fastening lumber, \$18.05 per 1,000 feet.

Electrical wire system on tower of Ferry building. Novelty Sign Co.,
contractors. Date of contract, June 4, 1902.

Contract price----- \$2,878 00

Paid June 18, 1902----- 2,158 50

Dry dock wharves in Central Basin. San Francisco Dry Dock Co.,
contractors. Date of contract, June 4, 1902.

Contract price----- \$79,206 00

Repiling and repairing Pier No. 4 (Mission Street Wharf No. 2).
S. D. Le Clair, contractor. Date of contract, June 11, 1902.

Contract price—

Furnishing and driving piles, \$24.25 per pile.

Furnishing and fastening lumber, \$25.00 per 1,000 feet.

Furnishing and fastening compound stringers, \$34.50 per 1,000 feet.

Dredging at Third and Channel streets, and Sixth and Channel
streets. Pacific Coast Dredging and Reclamation Co., contractors.
Informal bid.

Work done June 11, 1902—

Third and Channel Streets:

120¼ scows of soft mud (200 cu. yds. each),

724,050 cu. yds., at 10 cents per cu. yd.----- \$2,405 00

Sixth and Channel Streets:

11 scows of sand and gravel (200 cu. yds. each),

2,200 cu. yds., at 15 cents per cu. yd.----- 330 00

\$2,735 00

Paid June 11, 1902----- 2,051 25

Constructing shed on Pier No. 19 (Union Street Wharf No. 2).
Hannah Bros., contractors. Date of contract, December, 16, 1901.

Contract price----- \$12,773 00

Paid Feb. 12, 1902—Estimate No. 1----- \$4,789 88

Paid Apr. 16, 1902—Estimate No. 2----- 2,873 92

Paid May 21, 1902—Estimate No. 3----- 1,915 95

9,579 75

Repairing the spring-line of Second Street Car Ferry Slip. Robert
Wakefield, contractor. Date of letter of agreement, June 18, 1902.

Contract price—

Furnishing and driving spring piles, \$20 per pile.

Furnishing and fastening lumber (ribbing and chocks), \$40 per 1,000 feet
(B. M.).

Repairing bulkhead between Piers Nos. 25 and 27. Robert Wake-
field, contractor. Date of informal bid, April 12, 1902.

Contract price—

Furnishing and driving piles, \$9.50 per pile.

Furnishing and fastening lumber, \$22 per 1,000 feet (B. M.).

EXHIBIT K.

CONSTRUCTION ACCOUNT No. 4.

SEAWALL.

The completed Seawall has cost as follows:

Section.	Length—Feet.	Cost per Lineal Foot.	Total Cost.
Section A, constructed in 1879-80.....	561	\$152 61	\$85,614 53
Section 1, constructed in 1878-79.....	1,000	165 63	165,631 40
Section 2, constructed in 1879-80.....	1,000	167 50	167,504 09
Section 3, constructed in 1879-81.....	1,000	235 50	235,049 51
Section 4, constructed in 1880-82.....	1,000	240 87	240,872 01
Section 5, constructed in 1883-84.....	1,000	169 89	169,893 57
Section 6, constructed in 1885-86.....	800	158 47	126,779 73
Section 7, constructed in 1887-89.....	1,000	109 32	109,327 99
Section 8b, constructed in 1888-90.....	450	248 50	111,629 12
Section B, constructed in 1890-93.....	1,000	114 60	114,601 18
Section 8a, constructed in 1891-93.....	392	219 41	86,008 09
Totals.....	9,203	Av., \$175 26	\$1,612,911 22

EXHIBIT L.

CONSTRUCTION ACCOUNT No. 5.

BELT RAILROAD.

Statement of Cost of Construction and Maintenance.

Fiscal Year Ending—	Construc- tion and Equipment.	Maintenance.		Freight Sheds, Coal Platforms, Paving, etc.	Car Ferry Slips at Section 4, Seawall.	Total.
		Employés.	Fuel, Re- pairs, etc.			
June 30, 1891.....	\$327 61					\$327 61
June 30, 1892.....	74,188 90	\$4,769 31	\$2,349 25	\$24,150 37	\$46,503 31	151,961 14
June 30, 1893.....	4,496 68	8,071 05	3,070 57	72 10		15,710 40
June 30, 1894.....	50 69	9,621 00	4,971 94	222 70	16,183 12	31,049 45
June 30, 1895.....	11,587 38	8,857 95	3,434 31	6,875 62	7,791 88	38,547 14
June 30, 1896.....		10,234 05	4,954 96			15,189 01
June 30, 1897.....		8,507 75	2,914 82			11,422 57
June 30, 1898.....		9,553 75	5,515 38	3,389 50		18,458 63
June 30, 1899.....		20,177 70	5,361 68			25,539 38
June 30, 1900.....		24,682 60	9,841 58	2,952 63		37,476 81
June 30, 1901.....	37,519 31	24,550 55	14,055 88	220 84		76,346 58
June 30, 1902.....	19,314 90	27,329 50	20,092 10	580 26		67,316 76
Totals.....	\$147,485 47	\$156,355 21	\$76,562 47	\$38,464 02	\$70,478 31	\$489,345 48

EXHIBIT M—Continued.

Date Issued.	Due.	Draft No.	Issued to.	Account of.	Amount.
1902					
Jan. 22	April 22, '02	45	Healy, Tibbitts & Co.	Construct'g and repair'g slips 1, 5, 6, 7	\$1,706 05
	July 22, '02	46	" " " "	" " " " " "	1,706 05
	Oct. 22, '02	47	" " " "	" " " " " "	1,706 05
Feb. 19	Aug. 19, '02	48	Atlantic, Gulf and Pacific Co.	Dredging Channel street.....	3,486 75
	Nov. 19, '02	49	Atlantic, Gulf and Pacific Co.	" " " " " "	3,486 75
	Feb. 19, '03	50	Atlantic, Gulf and Pacific Co.	" " " " " "	3,486 75
Mar. 19	June 19, '02	51	S. F. Timber Presv'g Co.	Creosoting piles, Union No. 1 Wharf	1,696 66
	Sept. 19, '02	52	" " " " " "	" " " " " "	1,696 66
	Dec. 19, '02	53	" " " " " "	" " " " " "	1,696 67
Apr. 2	Oct. 2, '02	54	Healy, Tibbitts & Co.	Repair'g wharf, N. side Channel St.	1,555 71
	Jan. 2, '03	55	" " " " " "	" " " " " "	1,555 71
	April 2, '03	56	" " " " " "	" " " " " "	1,555 71
Apr. 16	July 16, '02	57	Robert Wakefield	Constructing Pier No. 21.....	3,234 42
	Oct. 16, '02	58	" " " " " "	" " " " " "	3,234 42
	Jan. 16, '03	59	" " " " " "	" " " " " "	3,234 42
	Apr. 16, '03	60	" " " " " "	" " " " " "	3,234 42
	July 16, '03	61	" " " " " "	" " " " " "	3,234 42
	Oct. 16, '03	62	" " " " " "	" " " " " "	3,234 42
	Jan. 16, '04	63	" " " " " "	" " " " " "	3,234 42
	Apr. 16, '04	64	" " " " " "	" " " " " "	3,234 42
	July 16, '04	65	" " " " " "	" " " " " "	3,234 42
	Oct. 16, '04	66	" " " " " "	" " " " " "	3,234 42
	Jan. 16, '05	67	" " " " " "	" " " " " "	3,234 42
	Apr. 16, '05	68	" " " " " "	" " " " " "	3,234 42
	July 16, '05	69	" " " " " "	" " " " " "	3,234 42
	Oct. 16, '05	70	" " " " " "	" " " " " "	3,234 42
	Jan. 16, '06	71	" " " " " "	" " " " " "	3,234 42
	Apr. 16, '06	72	" " " " " "	" " " " " "	3,234 42
May 7	Nov. 7, '02	73	Fred Miller	Build'g on bulkhead bet. Piers 9-11	1,846 75
	Feb. 7, '03	74	" " " " " "	" " " " " "	1,846 75
	May 7, '03	75	" " " " " "	" " " " " "	1,846 75
Total amount of drafts issued.....					\$224,415 20

Deferred payment drafts matured and were paid out of the San Francisco Harbor Improvement Fund, as follows:

Date Issued.	Issued to.	Draft No.	Account of.	Amount.
Nov. 28, 1901	H. R. Rood & Co.	17	Coating piles.....	\$1,164 24
Dec. 4, 1901	Healy, Tibbitts & Co.	20	Repairing ferry slips.....	1,766 69
Dec. 4, 1901	Darby Laydon	23	Addition to Washington Street	3,745 00
Feb. 28, 1902	H. R. Rood & Co.	18	Coating piles.....	1,746 36
Mar. 4, 1902	Healy, Tibbitts & Co.	21	Repairing ferry slips.....	1,766 70
Mar. 7, 1902	Hyde Construction Co.	24	Repairing Main Street	1,447 41
Mar. 7, 1902	" " " "	25	Repairing Mission 1-2, Howard 1-2	2,529 68
Mar 11, 1902	S. F. Timber Preserving Co.	26	Creosoting piles.....	3,023 63
Apr. 24, 1902	Robert Wakefield	3	Constructing car ferry slips 1-2	3,649 75
Apr. 8, 1902	" " " "	29	Constructing Union Street Wharf	3,089 45
Apr. 22, 1902	Healy, Tibbitts & Co.	45	Repairing slips 1, 5, 6, 7	1,706 05
May 28, 1902	H. R. Rood & Co.	19	Coating piles.....	2,910 60
June 4, 1902	Healy, Tibbitts & Co.	22	Repairing ferry slips.....	1,766 70
June 11, 1902	S. F. Timber Preserving Co.	27	Creosoting piles.....	4,535 44
June 19, 1902	" " " "	51	" " " " " "	1,696 66

The following deferred payment drafts were discounted:

Oct. 10, 1901	Robert Wakefield	1	Construction of car ferry slips 1-2	3,649 75
Oct. 10, 1901	" " " "	2	" " " " " "	3,649 75
				\$43,843 86

Total amount of drafts issued..... \$224,415 20
 Deferred payment drafts matured and paid..... 43,843 86

Amount of deferred payment drafts outstanding June 30, 1902 \$180,571 34

EXHIBIT N.

STATEMENT OF COST OF DREDGING.

Fiscal Year Ending—	Salaries of Employees.	Repairs.	Coal.	Ship Chandlery and Water.	Miscellaneous, including Docking Dredgers, Tugs, Scows.	Total.	No. Yards Dredged.	No. Hours Worked.	Cost per Cubic Yard, Cents.
June 30, 1875	\$11,663 97	\$10,362 99	\$8,639 00	\$1,386 64	\$1,301 25	\$33,335 71	303,429	2,348 ³ / ₄	10.76
June 30, 1876	11,932 98	7,639 43	8,224 04	1,660 85	1,905 74	31,363 19	342,638	2,634	9.15
June 30, 1877	11,980 99	4,941 44	5,971 71	1,582 10	1,676 79	25,253 03	280,197	2,478 ¹ / ₂	9.01
June 30, 1878	17,188 80	7,372 48	7,754 86	2,666 37	3,032 55	38,214 40	423,654	3,080	9.02
June 30, 1879	26,201 70	14,963 90	11,755 12	5,443 70	1,289 60	60,454 68	843,879	4,094	7.16
June 30, 1880	27,202 59	8,824 19	11,115 11	4,184 65	318 75	51,645 29	749,011	4,323	6.89
June 30, 1881	25,948 49	10,196 63	11,037 15	4,194 44	85 81	51,462 52	732,919	3,982 ¹ / ₂	7.02
June 30, 1882	25,860 00	9,556 57	8,925 33	4,101 10	300 45	639,570	639,570	3,639 ¹ / ₂	7.62
June 30, 1883	25,860 01	12,152 06	9,093 05	3,800 58	551 80	51,457 50	635,322	3,776 ¹ / ₂	8.13
June 30, 1884	26,358 00	20,906 35	9,838 60	3,627 45	50 00	60,780 40	643,100	3,663 ¹ / ₂	9.45
June 30, 1885	26,896 24	11,610 58	10,074 34	3,657 64	20 00	52,258 80	680,700	3,652 ¹ / ₂	7.68
June 30, 1886	26,634 65	6,293 18	9,886 55	3,841 02	20 00	46,675 40	678,900	3,758 ¹ / ₂	6.97
June 30, 1887	26,520 00	36,872 40	7,911 49	4,435 62	2,307 48	78,046 99	601,800	3,175 ¹ / ₂	12.97
June 30, 1888	27,757 00	10,264 87	11,339 27	4,154 26	537 30	54,082 70	717,600	3,797 ¹ / ₂	7.52
June 30, 1889	27,847 00	21,004 76	9,392 65	3,292 77	887 78	62,424 96	536,800	3,010	11.62
June 30, 1890	27,825 87	10,403 04	9,377 93	3,671 54	310 53	51,588 91	645,300	3,298	7.99
June 30, 1891	28,112 45	8,919 66	10,163 75	3,735 55	2,299 40	53,230 81	563,300	3,206 ¹ / ₂	9.35
June 30, 1892	28,151 00	14,121 49	9,545 08	3,736 01	528 12	56,081 70	522,400	3,568	10.73
June 30, 1893	27,655 72	12,858 62	8,596 79	3,533 20	1,362 00	54,006 33	641,400	3,127	8.44
June 30, 1894	28,350 30	17,505 81	8,931 46	3,099 10	471 00	59,357 67	677,200	3,743 ¹ / ₂	8.75
June 30, 1895	28,516 20	39,226 19	7,959 10	3,683 94	279 00	79,664 43	537,400	2,751	14.823
June 30, 1896	28,493 81	14,132 13	8,713 25	5,208 95	90 88	56,639 02	657,300	3,055	8.617
June 30, 1897	28,515 00	16,519 35	7,118 87	3,411 09	122 00	55,686 31	691,600	3,229	8.051
June 30, 1898	28,910 90	13,611 64	6,986 15	4,550 97	219 15	54,278 81	645,600	2,917	8.407
June 30, 1899	30,967 00	12,490 49	5,874 71	4,559 31	211 40	54,102 91	671,800	2,864	8.053
June 30, 1900	29,319 35	21,239 27	6,808 50	2,985 72	240 95	60,593 79	670,700	2,903	9.034
June 30, 1901	27,720 40	8,332 02	7,603 23	2,480 59	30 00	46,166 24	794,800	3,521 ¹ / ₂	5.808
June 30, 1902	32,012 05	15,679 90	8,256 21	3,329 91	216 80	59,494 87	810,400	3,808	7.341

EXHIBIT O.

REPORT OF ATTORNEY FOR THE BOARD.

SAN FRANCISCO, June 30, 1902.

To the Honorable the Board of State Harbor Commissioners:

GENTLEMEN: I hereby submit a report of the affairs of my office for the period ending June 30, 1902.

The importance of the questions submitted to your attorney and the time required from him in the discharge of the duties of his office make it proper that his salary should be equal at least to that of the Secretary of your Board, and I recommend that the laws be changed to that effect, the increase to commence July 1, 1903.

The business of the Harbor Commission has increased to such an extent as to require the entire time of the President of the Board to properly attend to the duties. The law should be so amended as to prohibit the President of the Board of State Harbor Commissioners from being engaged in any business that will occupy any of his time between the hours of 9 o'clock A. M. and 4 o'clock P. M., and the salary of the office raised accordingly. This requirement is in the Bank Commission law, and while President Kilburn has given all the hours specified above in a faithful discharge of the duties of his office, he has done this without any requirement of law. What he has done from choice others should be compelled to do by law, for it should take all the time of the President of the Board and of its officers to properly consider matters relating to the harbor front.

The Assistant Secretary should also have his salary fixed at \$200 per month.

These salaries are not paid from the tax levy, but directly by the interests benefited, and while much has been said as to the cheapness of other parts, I desire to state that the charges of the Harbor Commissioners are smaller, all things considered, even of those of the boasted port of Seattle, as is proven by appendixes A, B, and C, which explain themselves.

The change in the Harbor Commission laws during the special session of 1900 and the increased duties of your Board thereunder, have thrown on this department more than usual work. These laws have worked well, and under them many costly improvements of a permanent nature have been made.

It is unnecessary to particularize these improvements or the many meetings and consultations necessary before bidders were willing to assume the risks of contracts under the new laws; it is sufficient to

state that the benefits derived from the laws justify the action of our efficient Chief Magistrate, Governor Gage, convening a special session for the purpose of passing the same.

In my department not only have I been called upon for frequent investigations and opinions on nearly every question that could arise under many of the new as well as under the old laws, but to take steps in court, as well as out of court, to protect the rights of the State and your Board.

In chronological order, I give a few of the matters dealt with by this department:

July 5, 1900. Claim of V. Miller for damages; settled January 30, 1901, for \$103.35.

July 19, 1900. Libeled sch. "Alexander" for dockage; claim collected.

During July and August frequent consultations concerning the China Basin lease.

August. During this and the succeeding months, the trouble between the Board and Andrew Wilkie, contractor for the construction of the Postoffice Building, engrossed much time and caused many consultations between the Board, sub-contractors, materialmen, laborers, lawyers, bondsmen, and others. It was finally necessary to advise your Board to take possession of the new building and thus protect all parties.

By September 15th there were verified claims against said Wilkie, filed with this Board, amounting to \$15,875.21.

On April 10, 1901, the Wilkie matter was settled. The Board was not put to extra cost in this difficult matter, which for a long time threatened to lead to interminable litigation.

Eight-Hour Law.—On August 25, 1900, L. & E. Emanuel, incorporated, appeared before the Board regarding its claim as sub-contractors. The same was opposed by organized labor, because of objections growing out of a supposed violation of the State eight-hour law, and the corporation was required to sue in court so that the Board and its members would be protected and the provision of the new Act be interpreted. The attorney for objectors was associated with your attorney in the suit, which resulted in an order of the court to pay the Emanuel claim. This was done.

Holmes Controversy.—A controversy having arisen between your Board and Howard C. Holmes, its efficient engineer, and Carl Uhlig, as to the right of said Board to construct what are known as "cylinder pier wharves," without paying said Holmes & Uhlig royalties under a patent claimed to cover such construction, the matter was referred to a firm of able specialists in patent law, and also to the Attorney-General and Mr. Boone, an able lawyer. Wheaton & Kalloch, the firm referred to, were thereafter retained. They and the Attorney-General reported that the Board had a right to use the method of construction without paying

royalty therefor. In this opinion, your attorney concurred. This matter was of such importance that your Board deemed it essential to have the adjudication of the Federal courts on the same. A suit was commenced by Holmes & Uhlig. On a trial in the lower court, judgment was given the plaintiffs for \$5,000, the amount sued for being \$27,400. From this judgment an appeal is now pending. This is one of the most important cases in which the Board has been involved, and on it will largely depend the methods of wharf construction, with or without royalty.

October 10, 1900. The case of the Paraffine Paint Co. against this Board was dismissed.

Channel Street Controversy.—During January, 1901, controversy arose as to the respective rights of the State and of owners and claimants of land fronting on Channel Street, a navigable stream. After consultation with the owners or claimants and their attorneys, I advised the Board to take full possession of the street, to improve the same, and to charge for vessels using your improvements, whether or not the State owned the land fronting thereon; and in December, 1901, I again advised the Board to prevent private parties from building on disputed ground without permission of the Board. It became necessary to seize private wharf improvements under construction, and to dock vessels of the State not only alongside of the disputed premises, but also in the main channel itself, before litigation could be avoided and the claimants compelled to recognize the rights of the Board. Channel Street has been improved, and at present I know of no existing controversy as to the State's rights therein.

China Basin.—It being deemed necessary to secure legislation to protect the rights of the lessee of the China Basin, and its successors in interest, your attorney was required to draft the requisite bills and present the legal questions involved to committees of the Legislature. Later, a fight being made against the pending lease measures, at the request of the representatives of the railroad company, backed by the request of your Board, I went to Sacramento with members of the Board and Captain Payson, vice-president of the lessee, and assisted in the fight for the passage of these measures. Though this was no part of the duties of my office, I gave much of my time thereto, as the attorneys and officials of the company assured me the bills would otherwise be defeated. I was in constant consultation with Mr. E. S. Pillsbury and Captain Payson, as well as with members of your Board, on this subject until the bills became laws. I also consulted with the Chief Counsel of the road in the State, Captain Sterry, and received suggestions from him as to proper steps to pursue. Since the lease, laws were passed. The lessee company has been fulfilling the conditions of the same. It has also leased other property from the Board and had docks constructed and leased to it.

July 18, 1901. After proceedings duly taken, the seawall lots 14 and 15 were leased for a term of years to the Southern Pacific Company. Later, March 21, 1902, resolutions authorizing said company to remove its railroad tracks therefrom at the termination of its lease were passed on condition. A right or franchise to lay railroad tracks between these lots was secured from the city.

October 2, 1901. Claim of Chalmers for damages was compromised and settled for \$150.

December 4, 1901. Peras's claim for damages was compromised and settled for \$100.

December 4, 1901. Stratton's claim was compromised and settled for \$1,500.

January 22, 1902. Half of William Cronan's claim was paid.

April 23, 1902. Howard Street Wharf No. 2 collapsed, carrying down much value in coal, besides doing considerable damage to State's property. Over this, litigation was expected, and proper steps were promptly taken to protect the Board and State.

Islais Creek.—During the past year, objections of owners of land fronting on Islais Creek, the same being closed, were made to the Board. There is no doubt that the creek should be kept open, even if it is necessary for the Board to tear away obstructions placed therein by others.

I have also been required to advise against the closing of certain streets and to appear before the Board of Supervisors, at your request, to prevent any street leading to the water front being closed.

Several accidents occurring on the Belt Railroad have required my presence before the coroner, or in court, to the end that the interests of the State and Board be protected. The accidents were shown to have been without negligence on part of the Board and to have occurred under circumstances exempting the State from liability.

An action has been commenced recently against a former Board, growing out of occurrences in 1890. I have been instructed to and have appeared therein for said former Board.

Year by year, as the work on the "Front" increases, the truth of my able predecessor's remarks that,

In addition to the above unusual and special matters there have been the ever present legal controversies that unavoidably attend the large and complicated business of protecting and improving the water front of San Francisco, involving, as it does, the construction and preservation of seawalls, piers, wharves, and other structures, the dredging of slips and docks, the collection of tolls, wharfage, and dockage, the letting of many and multifarious contracts, the employment of a large force of employes, and the collection and disbursement of some \$600,000 per annum, become more apparent.

The collections and disbursements have averaged \$800,000 per annum during the past two years.

Respectfully submitted.

JAMES H. BUDD.

EXHIBIT A.

SAN FRANCISCO, 1902.

MY DEAR GOVERNOR: Referring to our conversation of yesterday, inclosed find letters from the Harbor Department of Seattle in reply to my letters of January 4th and 17th, 1899.

These letters of mine you will find in press copybook in office of Harbor Commission.

In 1899, addressed letters to all ports of any consequence in Europe and America, with a view to ascertain existing port charges of all kinds—dockage, tolls, port warden surveys of cargoes, stevedoring, etc.

You will observe from letters inclosed, that in 1899 all the wharves in Seattle, excepting one, were owned by private individuals. *One (1) wharf was owned by the city.* While there is no dockage charge against vessels lying at the wharves at Seattle, there is a toll ranging from 25 to 50 cents per ton on cargo.

Now, say a vessel of 2,000 tons net measurement, loaded with 2,000 tons of cargo, arrives in San Francisco, and is assigned to a wharf. She should at least get cargo unloaded in ten days.

San Francisco rates would then be—

10 days, at \$17.50.....	\$175 00
Toll on 2,000-ton cargo at 5 cents per ton.....	100 00
Total	\$275 00

Seattle rates would be—

No charge for dockage.	
2,000 tons cargo, at 25 cents per ton	500 00
In favor of San Francisco	\$225 00

In figuring the Seattle charge you will notice that I have taken the lowest toll rate on cargo, viz., 25 cents. From letters inclosed, you will notice that it runs up to 50 cents per ton.

Please return me the letters from the Harbor Department of Seattle.

As I am to leave the city to-night, and as you seemed anxious to obtain information on the subject, immediately—hence this letter.

Very sincerely yours,

P. J. HARNEY.

Forgot to make a comparison on a ship taking in cargo.

In San Francisco a ship loading is charged a dockage rate of one half discharging rate.

Now, take a vessel of 2,000 tons net measurement. Say she takes fifteen days to load her cargo in San Francisco—then the figures will be:

15 days, at \$8.75 per day.....	\$131 25
Toll on 2,000 tons, at 5 cents.....	100 00
	\$231 25 .

In Seattle it would be:

On vessel for dockage, <i>nothing</i> .	
On 2,000-ton cargo, at minimum rate of 25 cents per ton.....	\$500 00
In favor of San Francisco	\$268 75

EXHIBIT B.

SEATTLE, WASHINGTON, January 20, 1899.

MR. P. J. HARNEY, *State Harbor Commissioner, San Francisco, Cal.:*

DEAR SIR: Your favor of 17th inst. was duly received, and in reply would say: The city of Seattle owns one wharf, one slip or gridiron, and one wharf used exclusively as a berth for the fireboat. These are a continuation of streets Spring, Madison, and Washington. The city has control of same. All other wharves are owned by private individuals or companies. It is the rule to charge wharfage on all cargoes at these private wharves, loading and unloading, the rates being higher than those provided for by city ordinance. Any other information I can give you I shall be pleased to be at your service. Will you kindly send me the Harbor Rules and Regulations for the port of San Francisco?

Very respectfully,

N. L. ROGERS.

EXHIBIT C.

SEATTLE, WASHINGTON, January 14, 1899.

MR. P. J. HARNEY, *State Harbor Commissioner, San Francisco, Cal.:*

DEAR SIR: Your favor of 4th inst. was duly received by Mayor T. J. Humes and he has referred the same to me to furnish the information you desire. The office of Port Warden includes that of Harbormaster also. He is appointed by the Mayor and confirmed by the City Council for the term of two years, at a salary of nine hundred (900) dollars per year and no fees. There are no port charges on vessels in the port of Seattle. The wharves are owned by private individuals, with the exception of one, which is owned by the city; consequently there are no fixed rates for wharfage, tolls, etc. The general custom, however, has been that vessels while at a wharf discharging or loading cargo are not required to pay anything; the wharfage derived from said cargo realizing from 25 to 50 cents per ton. Vessels otherwise lying at a wharf are charged from \$1 to \$10 per day, according to circumstances and their tonnage. We have no fixed rates for surveying the cargo of ships; it all depends on the amount of work and time expended on the survey, and it is discretionary with the Port Warden what the fees shall be. So far, the fees on vessels or cargoes we have surveyed have not been over twenty (20) dollars for any one. There are no pilot fees in or out of this harbor, nor is there any need of a pilot. The stevedoring charges, so I am informed, are about the same as in the port of San Francisco. I send you copy of Harbor Rules and Regulations for the port of Seattle.

Yours very respectfully,

N. L. ROGERS,
Port Warden, Seattle, Wash.

EXHIBIT P.

REPORT OF EXPERT ACCOUNTANT.

632 MARKET STREET, ROOM 23,
SAN FRANCISCO, August 27, 1902. }

To the Honorable Board of State Harbor Commissioners, San Francisco:

GENTLEMEN: On the first day of July, I balanced the cash account of the State Harbor Commissioners, subsequently examining the books and accounts of the department for the quarter ending June 30, 1902.

This, with previous examinations, covers the two years commencing July 1, 1900, and ending June 30, 1902.

Here following I beg to submit a statement of the condition of each account as it stood on June 30, 1902:

CASH ACCOUNT.

Receipts for the month of June.....	\$119,769 87	
Credit tolls for the month of June	252 49	
		\$120,022 36
Disbursements for the month of June.....	63,552 84	
Balance		\$56,469 52

Accounted for as follows:

Balance at Crocker-Woolworth National Bank.....	\$53,892 28	
Coin and checks in the safe	1,921 64	
Bills paid, not entered up.....	655 60	
		\$56,469 52

By special permission I verified the bank balance with the book-keeper of that institution.

SAN FRANCISCO HARBOR IMPROVEMENT FUND.

By the courtesy of State Controller E. P. Colgan, I am enabled to reconcile the balance standing to the credit of this account with his books.

Balance, as per Harbor Commissioners' books.....	\$70,099 21	
Add amount of fifteen drafts outstanding and unpaid..	4,768 86	
Difference long standing	04	
		\$74,868 11
Balance, as per State Controller's books	\$15,209 63	
Add remittance to close June accounts, since acknowl- edged by him.	59,658 48	
		74,868 11

SAN FRANCISCO DEPOT SINKING FUND.

Per favor of State Treasurer Truman Reeves, I am in receipt of a statement of this account of which the subjoined is a synopsis:

STATE TREASURER.

Dr.

1900, July 1—To balance reported in last Biennial Report uninvested	\$22,399 68
1901, June 30—To interest on \$210,000 U. S. bonds, 1 year at 4 per cent	8,400 00
1902, June 30—To interest on same	8,400 00
To interest on \$50,000, ½ year at 4 per cent	500 00
To transfers from the S. F. Harbor Improvement Fund, as per Act of the Legislature, 24 months at \$4,631	111,144 00
	<hr/>
	\$150,843 68

Cr.

1902, Feb. 21—By purchase of U. S. 4 per cent bonds of 1925	\$50,000 00
By premium on same, at 139½	19,750 00
By exchange, at \$2 per 1,000	140 00
1902, June 30—By interest on \$600,000 S. F. Depot Sinking Fund bonds, 2 years at 4 per cent	48,000 00
	<hr/>
	\$117,890 00
Balance in the hands of the State Treasurer	\$32,953 68

Condition of the fund, June 30, 1902—

U. S. 4 per cent bonds held by State Treasurer, at par value	\$260,000 00
Cash balance uninvested	32,953 68
	<hr/>
Total in the fund at par value	\$292,953 68

I would explain that the care of this fund is entirely in the hands of the Sacramento officials, the monthly transfer of \$4,631, laid down by law, being the only thing in which the Harbor Commissioners have a part.

To report the accounting correct when speaking of the Secretary's office work is perhaps meager praise for accounts that evince in all respects competent care.

The several financial statements included in the biennial report have also had my careful attention and are in perfect accordance with the books and accounts of the department.

REMARKS.

The new departure of paying for construction with time drafts, in which are included five per cent per annum for deferred payment, and containing a provision that redemption before maturity may at any time be made at a like discount, seems to work very well. Though anticipating income may be bad as a general rule, this case I consider

an exception, for the public needs run faster than the receipts will warrant. However, wharf building and other construction is gradually assuming a more permanent nature, and the time will come when original construction will have arrived at somewhat of a stopping point, necessitating only the maintenance of old structures. The gradual payment of large undertakings by this means enables the Commissioners to meet the immediate demands of rapidly increasing commerce, which otherwise would be hampered for indefinite periods, to the detriment of our city's progress.

Compare this system with the \$600,000 bond issue for the Depot Fund. In that case the sinking fund has to be invested in United States 4 per cent bonds, at a premium on last purchase of $39\frac{1}{2}$ per cent, because the framers of the act authorizing the issue made no provision for redeeming the bonds earlier than the allotted twenty years, whereas they could be purchased at about 10 per cent premium or under.

This omission has cost the State thus far on \$260,000 over 20 per cent, or say \$52,000.

The financial outcome for the two years under consideration must be most satisfactory to you, as the following figures will show:

Total receipts for two years ending June 30, 1902.....	\$1,598,180 46
Total for two years ending June 30, 1900.....	1,325,489 03
Total increase.....	\$272,691 43

The accounting contains payrolls for only twenty-three months, and taking that into consideration, the expenditure will exceed that of the preceding two years by about \$15,000, as against the great gain above shown.

Congratulating you on the marked increase of facilities to meet the trade of this port, I am, gentlemen,

Yours faithfully,

JULIAN B. HARRIES,

Certified Public Accountant.

REPORT
OF THE
STATE BOARD OF EQUALIZATION
FOR
1899-1902.

STATE BOARD OF EQUALIZATION:

ALEX. BROWN - - *Chairman,*

L. H. BROWN, R. H. BEAMER, T. O. TOLAND, E. P. COLGAN.

CHAS. M. COGLAN, - *Secretary.*



SACRAMENTO:

W. W. SHANNON, : : : SUPERINTENDENT STATE PRINTING.
1903.

REPORT OF STATE BOARD OF EQUALIZATION.

To His Excellency HENRY T. GAGE, *Governor*:

SIR: In accordance with Section 3692 of the Political Code, the State Board of Equalization herewith submits the following report:

Schedules "A" show the amount of property upon which the State rate of taxation was based, and the rates for 1899, 1900, 1901, and 1902.

Schedules "B" show number of acres of land assessed as per Auditors' statements, and valuation of real estate and improvements.

Schedules "C" show value of property mortgaged, assessed value of mortgages, and percentage of mortgages to total value of real estate and improvements.

Schedules "D" show value of all property after equalization by the Board.

Schedules "E" show assessment and apportionment of railways.

Schedules "F" show apportionment of railways to counties.

Schedules "G" show assessment of personal property.

Schedules "H" give agricultural and horticultural statistics.

Schedule "I" shows assessment of telegraph and telephone lines, 1902.

Schedule "J" shows total assessed value of property, and rates of State taxation from 1850 to 1902, inclusive.

The Political Code provides that the Board of Equalization report to the Governor such further suggestions as it shall deem proper in addition to the tabulated valuation of property, and it has been customary for the Board, in making its report, to suggest what it considered needed reforms in the revenue laws, and necessary changes in the methods of assessment and collection of taxes; but the Board thinks it unnecessary to mention any particular change, as the Commission for the Revision of the Codes will probably take up the whole subject in detail when that portion of the Political Code is under consideration.

A. BROWN, Chairman.

R. H. BEAMER.

L. H. BROWN.

T. O. TOLAND.

E. P. COLGAN.

C. M. COGLAN, Clerk.

VALUATIONS AND RATES OF TAXATION—1899.

SCHEDULE A.

Showing Amount of Property upon which the State Rate of Taxation was Based, and the Rate for 1899.

Value returned by Auditors	\$1,148,283,620
Railroad assessment by Board	46,394,275
Amount upon which tax is based	<u>\$1,194,677,895</u>

Amount to be Raised for Fifty-first Fiscal Year.

		Rate.
General Fund	\$4,000,722	35.3
School Fund	2,433,340	21.5
Interest and Sinking Fund	141,435	1.3
University Fund .....	.....	2.0
Total	<u>\$6,575,497</u>	

SCHEDULE B.

Number of Acres of Land Assessed, as per Auditors' Statements, and the Valuation of Real Estate and Improvements, for 1899.

Counties.	Acres.	Value of Real Estate other than City and Town Lots.	Value of City and Town Lots.	Value of All Real Estate.	Value of Improvements on Real Estate other than City and Town Lots.	Value of Improvements on City and Town Lots.	Value of All Improvements.
Alameda	537,361	\$14,934,475	\$32,982,100	\$47,916,575	\$4,125,900	\$22,416,425	\$26,542,325
Alpine	47,447	135,064	700	135,764	107,953	2,520	110,473
Amador	277,874	2,358,401	263,220	2,621,621	736,660	679,290	1,415,950
Butte	838,161	7,841,070	759,205	8,600,275	994,115	1,144,435	2,138,550
Calaveras	432,687	2,665,115	166,800	2,831,915	898,720	514,650	1,413,370
Colusa	598,564	8,554,770	276,962	8,831,722	548,724	560,037	1,108,761
Contra Costa	457,096	8,479,015	473,510	8,952,525	1,957,940	767,740	2,725,680
Del Norte	131,254	1,275,815	57,975	1,333,790	147,070	118,075	265,145
El Dorado	555,042	1,990,175	143,555	2,133,730	690,280	426,290	1,116,570
Fresno	2,081,974	14,561,714	3,654,413	18,216,127	2,361,780	2,489,902	4,851,682
Glenn	611,497	7,504,754	164,467	7,669,221	504,624	188,955	693,579
Humboldt	1,295,869	8,836,600	2,120,335	10,956,935	954,735	1,512,020	2,466,755
Inyo	191,629	720,780	55,029	775,809	345,007	131,591	476,598
Kern	2,829,181	7,728,979	1,034,890	8,763,869	971,161	934,396	1,905,557
Kings	612,522	4,460,239	324,360	4,784,599	428,087	368,935	797,022
Lake	336,359	1,691,708	145,613	1,837,321	458,912	201,650	660,562
Lassen	431,731	1,456,989	44,459	1,501,448	350,496	120,150	470,646
Los Angeles	1,081,565	21,649,080	36,471,260	58,120,340	3,974,020	21,547,310	25,521,330
Madera	737,984	3,615,860	233,175	3,849,135	312,350	161,235	473,585
Marin	326,441	5,331,315	2,092,930	7,424,245	1,103,120	1,542,240	2,645,360
Mariposa	328,287	1,706,880	40,855	1,747,735	276,532	107,915	384,447
Mendocino	1,413,586	6,359,179	524,430	6,883,609	960,010	746,219	1,706,229
Merced	1,229,650	9,080,329	470,720	9,551,049	540,842	565,510	1,106,352
Modoc	328,541	1,167,179	32,784	1,199,963	371,015	140,240	511,255
Mono	155,153	415,730	17,340	433,070	178,954	140,270	319,224
Monterey	1,367,935	10,794,392	1,437,260	12,231,652	1,221,275	1,067,585	2,288,860
Napa	388,592	4,776,070	947,310	5,723,380	2,018,830	1,525,290	3,544,120
Nevada	463,400	2,439,260	393,600	2,832,860	1,190,405	1,133,980	2,324,385

Orange	440,383	5,349,935	1,341,790	6,691,725	977,905	1,088,015	2,065,920
Placer	615,990	3,921,498	386,880	4,308,378	1,106,875	863,495	1,970,370
Plumas	327,672	1,280,872	25,159	1,310,031	312,071	136,506	448,577
Riverside	884,626	5,156,726	1,159,480	6,316,206	1,990,762	1,174,617	3,165,379
Sacramento	608,621	10,505,460	8,176,750	18,682,210	1,595,760	6,912,870	8,508,630
San Benito	521,270	3,699,910	281,955	3,981,865	563,080	380,360	943,440
San Bernardino	472,004	7,146,315	1,577,115	8,723,430	1,818,200	1,570,915	3,389,115
San Diego	1,201,506	4,777,258	7,126,829	11,904,087	1,032,964	3,067,333	4,100,297
San Francisco	27,000	3,302,430	185,912,620	189,215,050	978,500	95,111,820	96,090,320
San Joaquin	876,867	12,819,146	6,000,174	18,879,320	1,506,598	4,739,128	6,245,726
San Luis Obispo	1,530,171	7,232,510	843,490	8,076,000	705,613	834,364	1,639,977
San Mateo	324,077	6,991,775	1,576,775	8,568,550	2,504,435	833,220	3,337,655
Santa Barbara	1,120,338	6,153,133	2,521,235	8,674,368	917,150	1,572,225	2,489,375
Santa Clara	720,179	21,247,875	11,006,635	32,254,560	7,179,330	6,503,205	13,082,535
Santa Cruz	262,968	4,036,770	2,280,255	6,317,025	1,125,430	1,441,555	2,666,985
Shasta	1,146,550	3,801,049	430,435	4,231,484	745,694	610,880	1,356,574
Sierra	296,447	899,850	33,535	933,385	181,330	148,765	330,095
Siskiyou	1,379,691	4,060,561	211,520	4,272,081	955,515	529,110	1,484,625
Solano	472,886	9,722,699	1,037,690	10,760,389	1,478,623	1,923,332	3,401,955
Sonoma	866,270	12,002,973	2,975,302	14,978,275	3,072,890	2,696,736	5,769,686
Stanislaus	859,872	7,182,905	492,350	7,675,255	670,165	721,270	1,391,435
Sutter	374,513	4,210,096	75,381	4,285,477	671,996	157,620	829,616
Tehama	1,145,565	5,842,250	474,755	6,317,005	815,905	734,945	1,550,850
Trinity	399,272	718,048	357,572	1,075,620	28,910	85,590	114,500
Tulare	1,432,730	9,176,302	764,788	9,941,090	772,996	1,004,964	1,777,960
Tuolumne	383,482	3,226,795	250,425	3,477,220	982,175	519,940	1,502,115
Ventura	548,449	4,530,528	454,233	4,984,761	720,440	417,635	1,138,075
Yolo	591,307	10,157,671	831,245	10,988,916	1,076,776	1,388,705	2,465,481
Yuba	331,472	2,182,835	415,305	2,598,140	374,580	819,775	1,194,355
Totals	40,251,559	\$343,867,212	\$324,420,975	\$668,282,187	\$64,693,485	\$199,242,510	\$264,935,995

SCHEDULE C.

Value of Property Mortgaged, Assessed Value of Mortgages, etc., 1899.

Counties.	Assessed Value of Property Affected by Mortgage.	Assessed Value of Mortgages.	Per Cent of Mortgages to Total Value Real Estate and Im- provements.
Alameda	\$32,025,100	\$17,363,475	23.32
Alpine	15,936	11,470	4.65
Amador	428,679	428,679	10.60
Butte	2,949,750	2,148,114	20.02
Calaveras	755,150	382,045	9.00
Colusa	3,364,524	1,994,749	20.06
Contra Costa	5,125,400	2,816,890	24.12
Del Norte	390,468	310,529	19.42
El Dorado	606,150	412,260	12.68
Fresno	7,323,761	5,116,682	22.18
Glenn	2,318,400	1,707,492	20.41
Humboldt	3,174,430	2,206,933	16.44
Inyo	233,929	147,616	11.78
Kern	1,307,367	1,066,354	9.99
Kings	1,765,165	1,187,068	21.26
Lake	498,500	350,449	14.03
Lassen	324,761	230,742	11.70
Los Angeles	9,169,295	6,458,075	7.72
Madera	1,280,025	920,559	21.24
Marin	3,072,920	2,443,090	24.26
Mariposa	275,250	111,132	5.21
Mendocino	3,164,216	1,769,712	20.60
Merced	2,385,010	1,859,961	17.44
Modoc	400,000	242,105	14.14
Mono	70,000	59,637	7.92
Monterey	3,825,245	2,016,775	13.88
Napa	2,515,165	1,768,425	19.08
Nevada	728,540	536,032	10.39
Orange	371,740	309,785	3.53
Placer	1,722,265	1,099,505	17.51
Plumas	404,708	253,812	14.43
Riverside	2,309,000	1,380,667	14.57
Sacramento	6,523,800	3,832,100	14.10
San Benito	1,883,555	1,269,350	25.77
San Bernardino	2,416,640	1,765,130	14.57
San Diego	3,450,325	2,212,469	13.82
San Francisco	73,763,090	50,322,250	17.63
San Joaquin	10,815,720	5,218,731	20.70
San Luis Obispo	3,609,283	2,561,808	26.64
San Mateo	1,850,750	1,263,190	10.60
Santa Barbara	3,123,450	2,517,020	22.54
Santa Clara	9,450,105	9,450,105	20.50
Santa Cruz	2,239,475	1,672,025	18.61
Shasta	861,494	522,052	9.34
Sierra	76,535	61,604	4.87
Siskiyou	1,130,140	751,730	13.05
Solano	2,798,140	2,798,140	19.75
Sonoma	5,240,650	3,896,205	18.77
Stanislaus	3,606,910	2,591,020	28.57
Sutter	1,803,819	1,383,197	27.04
Tehama	2,325,760	1,374,855	17.47
Trinity	107,470	80,888	6.79
Tulare	3,146,813	2,270,848	19.37
Tuolumne	640,200	340,480	6.83
Ventura	1,978,849	1,184,131	19.33
Yolo	3,735,583	2,467,665	18.34
Yuba	929,075	747,960	19.72
Totals	\$241,808,480	\$161,665,742	-----

SCHEDULE D.

Showing Value of all Property as Returned by Auditors, and after Equalization by the Board, for 1899.

Counties.	Value of Real Estate and Improvements.	Personal Property, other than Money and Solvent Credits.	Money and Solvent Credits.	Value Preceding Columns.	Railroad Assessment.	Total Value of All Property.
Alameda	\$74,458,900	\$8,585,894	\$1,418,000	\$84,462,794	\$1,908,732	\$86,371,526
Alpine	246,237	31,659	1,884	279,780		279,780
Amador	4,037,571	531,858	20,384	4,589,813	72,000	4,661,813
Butte	10,738,825	1,733,150	172,139	12,644,114	876,823	13,520,937
Calaveras	4,245,285	651,555	16,365	4,913,205	94,808	5,008,013
Colusa	9,940,483	984,517	118,420	11,043,420	305,190	11,348,610
Contra Costa	11,678,205	3,480,619	40,990	15,199,814	819,589	16,019,403
Del Norte	1,598,935	183,135	6,250	1,788,320		1,788,320
El Dorado	3,250,300	577,306	17,485	3,845,090	274,950	4,120,040
Fresno	23,067,809	2,705,527	115,878	25,889,214	2,455,207	28,344,421
Glenn	8,362,800	757,670	78,132	9,198,602	411,300	9,609,902
Humboldt	13,423,690	2,101,390	278,027	15,803,107		15,803,107
Inyo	1,252,407	424,116	7,250	1,683,773	82,791	1,766,564
Kern	10,669,426	2,049,473	57,080	12,775,979	1,806,954	14,582,933
Kings	5,581,621	572,317	32,644	6,186,582	428,015	6,614,597
Lake	2,497,883	333,512	43,241	2,874,636		2,874,636
Lassen	1,972,094	890,666	27,410	2,890,170	125,738	3,015,908
Los Angeles	83,641,670	10,598,509	1,722,158	95,962,337	2,542,870	98,505,207
Madera	4,322,720	605,309	8,781	4,936,810	904,875	5,841,685
Marin	10,069,605	995,069	29,880	11,094,054	772,269	11,866,323
Mariposa	2,132,182	235,798	400	2,368,380		2,368,380
Mendocino	8,589,838	1,485,845	82,732	10,158,415	328,789	10,487,204
Merced	10,657,401	1,196,437	29,726	11,883,657	1,455,841	13,339,498
Modoc	1,711,218	1,214,854	65,502	2,991,574		2,991,574
Mono	752,294	245,724	11,669	1,009,687	37,209	1,046,896
Monterey	14,520,512	1,303,897	109,325	15,933,734	1,497,361	17,431,095
Napa	9,267,500	1,414,115	309,080	10,990,695	877,870	11,868,565
Nevada	5,157,245	1,102,570	65,185	6,325,000	622,585	6,947,585
Orange	8,757,645	1,094,910	101,115	9,953,670	634,819	10,588,489
Placer	6,278,748	801,941	114,443	7,195,132	1,989,143	9,184,275
Plumas	1,758,608	353,377	7,350	2,119,335	44,975	2,164,310
Riverside	9,481,585	891,757	68,318	10,441,660	1,524,069	11,965,729
Sacramento	27,190,840	3,789,510	677,890	31,658,240	1,165,515	32,823,555
San Benito	4,925,305	488,085	140,840	5,554,230	176,716	5,730,946
San Ber'dino	12,112,545	1,206,375	73,560	13,392,480	2,614,824	16,007,304
San Diego	16,004,384	2,116,898	53,622	18,174,904	1,547,600	19,722,504
S. Francisco	285,305,370	78,495,940	41,310,305	405,111,615	236,515	405,348,130
San Joaquin	25,125,046	4,208,288	496,320	29,829,654	1,988,096	31,817,750
S. L. Obispo	9,615,977	979,399	195,061	10,790,437	856,649	11,647,086
San Mateo	11,906,205	1,780,125	63,570	13,749,895	281,306	14,031,201
S. Barbara	11,163,743	1,028,770	68,225	12,260,738	706,652	12,967,390
Santa Clara	45,937,095	3,985,045	459,030	50,381,170	1,208,292	51,589,462
Santa Cruz	8,984,010	1,123,420	75,140	10,182,570	567,208	10,749,778
Shasta	5,588,058	987,914	55,375	6,631,347	1,434,527	8,065,874
Sierra	1,263,480	167,320	8,952	1,439,752	45,588	1,485,340
Siskiyou	5,756,706	1,149,334	183,613	7,089,653	1,453,752	8,543,405
Solano	14,162,344	1,653,895	148,547	15,964,786	1,104,143	17,068,929
Sonoma	20,747,961	2,691,874	329,464	23,769,299	1,813,622	25,582,921
Stanislaus	9,066,690	1,208,915	154,550	10,430,155	1,188,535	11,618,690
Sutter	5,115,093	765,285	55,356	5,935,734	347,867	6,283,601
Tehama	7,867,855	1,579,180	132,245	9,579,280	864,135	10,443,415
Trinity	1,190,120	255,107	22,927	1,468,154		1,468,154
Tulare	11,719,050	1,189,713	107,432	13,016,195	1,758,651	14,774,846
Tuolumne	4,979,335	586,580	336,695	5,599,610	103,318	5,702,928
Ventura	6,122,836	1,801,899	89,656	7,023,391	546,666	7,569,057
Yolo	13,454,397	1,255,220	408,599	15,118,216	1,132,107	16,250,323
Yuba	3,792,495	839,745	67,415	4,699,655	358,419	5,058,074
Totals	\$933,218,182	\$164,477,306	\$50,588,132	\$1,148,283,620	\$46,394,275	\$1,194,677,895

SCHEDULE E.

Showing Assessment and Apportionment of Railways for 1899.

Name of each Railway Assessed. and Name of the County and City and County to which the Assessment is Apportioned.	Number of Miles of Railway Operated in the State.	Number of Miles of each Rail- way in each County.	Total Value per Mile of each Rail- way.	Total Assessment of each Railway.	Amount of Assessment of each Railway Apportioned to each County.
California Pacific Railroad...	112.50		\$20,000 00	\$2,250,000	
Napa		41.00			\$820,000
Sacramento .....		.50			10,000
Solano		40.00			800,000
Yolo		31.00			620,000
Central Pacific Railroad	746.76		17,408 53	13,000,000	
Alameda		83.14			1,447,346
Butte		45.00			783,384
Fresno		32.00			557,073
Madera		29.06			505,892
Merced		36.75			639,764
Nevada		30.25			526,608
Placer		112.75			1,962,813
Sacramento		41.00			713,750
San Francisco		2.46			42,825
San Joaquin		56.75			987,935
Santa Clara		8.50			147,973
Shasta		82.08			1,428,893
Sierra		2.15			37,428
Siskiyou		83.18			1,448,042
Stanislaus		22.63			393,955
Sutter		10.00			174,085
Tehama		40.54			705,742
Tulare		12.65			220,218
Yuba		15.87			276,274
Northern California Railroad	53.00		6,500 00	344,500	
Butte		13.90			90,350
Sutter		26.63			173,095
Yuba		12.47			81,055
Northern Railway	374.93		9,000 00	3,374,370	
Alameda		10.50			94,500
Amador		8.00			72,000
Calaveras		9.80			88,200
Colusa		33.91			305,190
Contra Costa		23.75			213,750
El Dorado		30.55			274,950
Glenn		45.70			411,300
Napa		6.43			57,870
Sacramento		48.75			438,750
San Joaquin		19.48			175,320
Solano		33.45			301,050
Sonoma		30.52			274,680
Tehama		17.29			155,610
Yolo		56.80			511,200
South Pacific Coast Railroad	96.16		10,500 00	1,009,680	
Alameda		31.46			330,330
Santa Clara		37.00			388,500
Santa Cruz		27.70			290,850
Southern Pacific Railroad	1,548.11		10,012 21	15,500,000	
Alameda		1.40			14,017
Calaveras .....		.66			6,608
Contra Costa		56.30			563,687
Fresno		148.93			1,491,118
Kern		131.23			1,313,902
Kings		23.32			233,485
Los Angeles		199.18			1,994,232
Madera		21.00			210,256
Merced		52.50			525,641
Monterey		130.03			1,301,888
Orange		23.78			238,090
Riverside		92.60			927,131

SCHEDULE E—Continued.

Showing Assessment and Apportionment of Railways for 1899.

Name of each Railway Assessed, and Name of the County and City and County to which the Assessment is Apportioned.	Number of Miles of Railway Operated in the State.	Number of Miles of each Railway in each County.	Total Value per Mile of each Railway.	Total Assessment of each Railway.	Amount of Assessment of each Railway Apportioned to each County.
Southern Pacific R.R.—Cont'd.					
San Benito		17.65			\$176,716
San Bernardino		33.06			331,004
San Diego		87.79			878,972
San Francisco		7.36			73,690
San Joaquin		52.11			521,736
San Luis Obispo		72.60			726,886
San Mateo		25.10			251,306
Santa Barbara		58.57			586,415
Santa Clara		67.10			671,819
Santa Cruz		27.15			271,831
Stanislaus		56.86			569,294
Tulare		107.33			1,074,610
Ventura		54.50			545,666
Southern California Motor R'd	12.00		\$5,000 00	\$60,000	
Riverside		6.00			30,000
San Bernardino		6.00			30,000
San Francisco and North Pacific Railway	165.32		12,097 74	2,000,000	
Marin		29.50			356,884
Mendocino		25.80			312,122
Sonoma		110.02			1,330,994
San Francisco and San Joaquin Valley Railway	303.56		7,000 00	2,124,920	
Fresno		56.99			398,930
Kern		39.00			273,000
Kings		27.79			194,530
Madera		26.47			185,290
Merced		40.80			285,600
San Joaquin		26.01			182,070
Stanislaus		20.76			145,320
Tulare		65.74			460,180
Southern California Railway	479.506		6,256 44	3,000,000	
Los Angeles		85.754			536,513
Orange		62.691			392,223
Riverside		89.317			558,807
San Bernardino		136.592			854,580
San Diego		105.152			657,877
Sante Fé Pacific Railroad	242.542		5,706 27	1,384,000	
Kern		35.914			204,930
San Bernardino		206.628			1,179,070
North Pacific Coast Railroad	84.50		7,100 58	600,000	
Marin		58.50			415,385
Sonoma		26.00			184,615
Nevada County Narrow Gauge	22.50		5,000 00	112,500	
Nevada		18.78			93,900
Placer		3.72			18,600
Carson and Colorado R. R.	107.62		1,115 03	120,000	
Inyo		74.25			82,791
Mono		33.37			37,209
Nevada-California-Oregon Ry.	50.86		2,457 72	125,000	
Lassen		47.60			116,988
Sierra		3.26			8,012
Pajaro Valley Con. Railroad	34.90		5,730 66	200,000	
Monterey		34.11			195,473
Santa Cruz		.79			4,527
Pacific Coast Railway	76.10		3,285 15	250,000	
San Luis Obispo		39.50			129,763
Santa Barbara		36.60			120,237
Alameda and San Joaquin R.R.	35.88		3,500 00	125,580	
Alameda		2.79			9,765
San Joaquin		33.09			115,815

SCHEDULE E—Continued.

Showing Assessment and Apportionment of Railways for 1899.

Name of each Railway Assessed, and Name of the County and City and County to which the Assessment is Apportioned.	Number of Miles of Railway Operated in the State.	Number of Miles of each Railway in each County.	Total Value per Mile of each Railway.	Total Assessment of each Railway.	Amount of Assessment of each Railway Apportioned to each County.
Gualala River Railroad.....	12.00		\$3,333 33	\$40,000	
Mendocino		5.00			\$16,667
Sonoma		7.00			23,333
California and Nevada R. R.	23.00		2,173 91	50,000	
Alameda		5.50			11,957
Contra Costa		17.50			38,043
Sierra Railway Co. of Cal.	44 60		4,035 87	180,000	
Stanislaus		19.00			76,632
Tuolumne		25.60			103,318
Sierra Valleys Railway	30.70		1,750 00	53,725	
Lassen		5.00			8,750
Plumas		25.70			44,975
San Francisco and San Mateo					
Electric Railway	23.00		6,521 74	150,000	
San Francisco		18.40			120,000
San Mateo		4.60			30,000
Randsburg Railway	29.66		6,743 09	200,000	
Kern .....		.66			4,450
San Bernardino		29.00			195,550
Pullman's Palace Car Co. (¼ interest with C. P. and S. P. R. R.)	1,456.84		68 64	100,000	
Alameda		11.90			817
Butte		45.00			3,089
Contra Costa		59.85			4,109
Fresno		117.80			8,086
Kern		117.83			8,088
Los Angeles		117.48			8,064
Madera		50.06			3,437
Merced		70.45			4,836
Nevada		30.25			2,077
Placer		112.75			7,730
Riverside		92.60			6,357
Sacramento		41.00			2,815
San Bernardino		33.06			2,270
San Diego		87.79			6,026
San Joaquin		76.05			5,220
Shasta		82.08			5,634
Sierra		2.15			148
Siskiyou		83.18			5,710
Solano		45.05			3,093
Stanislaus		47.83			3,284
Sutter		10.00			687
Tehama		40.54			2,783
Tulare		53.07			3,643
Yolo		13.20			907
Yuba		15.87			1,090
Pullman's Palace Car Co. (rolling stock operated over Southern California and Santa Fé Pacific)	556.00		71 94	40,000	
Kern		35.91			2,534
Los Angeles		56.45			4,061
Orange		62.63			4,506
Riverside		24.66			1,774
San Bernardino		310 66			22,350
San Diego		65 69			4,725

SCHEDULE F.

Showing Apportionment of Railroads to Counties for 1899.

Name of County and Road.	Amount Apportioned.	Total Assessment.
Alameda—		
Central Pacific	\$1,447,346	
Northern Railway	94,500	
South Pacific Coast	330,330	
Southern Pacific	14,017	
Alameda and San Joaquin	9,765	
California and Nevada	11,957	
Pullman's Palace Car Co.	817	
		\$1,908,732
Amador—		
Northern Railway	72,000	
		72,000
Butte—		
Central Pacific	783,384	
Northern California	90,350	
Pullman's Palace Car Co.	3,089	
		876,823
Calaveras—		
Northern Railway	88,200	
Southern Pacific	6,608	
		94,808
Colusa—		
Northern Railway	305,190	
		305,190
Contra Costa—		
Northern Railway	213,750	
Southern Pacific	563,687	
California and Nevada	38,043	
Pullman's Palace Car Co.	4,109	
		819,589
El Dorado—		
Northern Railway	274,950	
		274,950
Fresno—		
Central Pacific	557,073	
Southern Pacific	1,491,118	
San Francisco and San Joaquin Valley	398,930	
Pullman's Palace Car Co.	8,086	
		2,455,207
Glenn—		
Northern Railway	411,300	
		411,300
Inyo—		
Carson and Colorado	82,791	
		82,791
Kern—		
Southern Pacific	1,313,902	
San Francisco and San Joaquin Valley	273,000	
Santa Fé Pacific	204,930	
Pullman's Palace Car Co.	8,088	
Pullman's Palace Car Co.	2,584	
Randsburg Railway	4,450	
		1,806,954
Kings—		
Southern Pacific	233,485	
San Francisco and San Joaquin Valley	194,530	
		428,01
Lassen—		
Nevada-California-Oregon	116,988	
Sierra Valleys	8,750	
		125,738
Los Angeles—		
Southern Pacific	1,994,232	
Southern California	536,513	
Pullman's Palace Car Co.	8,064	
Pullman's Palace Car Co.	4,061	
		2,542,870

SCHEDULE F—*Continued.**Showing Apportionment of Railroads to Counties for 1899.*

Name of County and Road.	Amount Apportioned.	Total Assessment.
Madera—		
Central Pacific	\$505,892	
Southern Pacific	210,256	
San Francisco and San Joaquin Valley	185,290	
Pullman's Palace Car Co.	3,437	
		\$904,875
Marin—		
San Francisco and North Pacific	356,884	
North Pacific Coast	415,385	
		772,269
Mendocino—		
San Francisco and North Pacific	312,122	
Gualala River	16,667	
		328,789
Merced—		
Central Pacific	639,764	
Southern Pacific	525,641	
San Francisco and San Joaquin Valley	285,600	
Pullman's Palace Car Co.	4,836	
		1,455,841
Mono—		
Carson and Colorado	37,209	
		37,209
Monterey—		
Southern Pacific	1,301,888	
Pajaro Valley Consolidated	195,473	
		1,497,361
Napa—		
California Pacific	820,000	
Northern Railway	57,870	
		877,870
Nevada—		
Central Pacific	526,608	
Nevada County Narrow Gauge	93,900	
Pullman's Palace Car Co.	2,077	
		622,585
Orange—		
Southern Pacific	238,090	
Southern California	392,223	
Pullman's Palace Car Co.	4,506	
		634,819
Placer—		
Central Pacific	1,962,813	
Nevada County Narrow Gauge	18,600	
Pullman's Palace Car Co.	7,730	
		1,989,143
Plumas—		
Sierra Valleys	44,975	
		44,975
Riverside—		
Southern Pacific	927,131	
Southern California Motor	30,000	
Southern California	558,807	
Pullman's Palace Car Co.	6,357	
Pullman's Palace Car Co.	1,774	
		1,524,069
Sacramento—		
California Pacific	10,000	
Central Pacific	713,750	
Northern Railway	438,750	
Pullman's Palace Car Co.	2,815	
		1,165,315
San Benito—		
Southern Pacific	176,716	
		176,716

SCHEDULE F—*Continued.**Showing Apportionment of Railroads to Counties for 1899.*

Name of County and Road.	Amount Apportioned.	Total Assessment.
San Bernardino—		
Southern Pacific.....	\$331,004	
Southern California Motor.....	30,000	
Southern California.....	854,580	
Santa Fé Pacific.....	1,179,070	
Randsburg Railway.....	195,550	
Pullman's Palace Car Co.....	2,270	
Pullman's Palace Car Co.....	22,350	
		\$2,614,824
San Diego—		
Southern Pacific.....	878,972	
Southern California.....	657,877	
Pullman's Palace Car Co.....	6,026	
Pullman's Palace Car Co.....	4,725	
		1,547,600
San Francisco—		
Central Pacific.....	42,825	
Southern Pacific.....	73,690	
San Francisco and San Mateo.....	120,000	
		236,515
San Joaquin—		
Central Pacific.....	987,935	
Northern Railway.....	175,320	
Southern Pacific.....	521,736	
San Francisco and San Joaquin Valley.....	182,070	
Alameda and San Joaquin.....	115,815	
Pullman's Palace Car Co.....	5,220	
		1,988,096
San Luis Obispo—		
Southern Pacific.....	726,886	
Pacific Coast.....	129,763	
		856,649
San Mateo—		
Southern Pacific.....	251,306	
San Francisco and San Mateo.....	30,000	
		281,306
Santa Barbara—		
Southern Pacific.....	586,415	
Pacific Coast.....	120,237	
		706,652
Santa Clara—		
Central Pacific.....	147,973	
South Pacific Coast.....	388,500	
Southern Pacific.....	671,819	
		1,208,292
Santa Cruz—		
South Pacific Coast.....	290,850	
Southern Pacific.....	271,831	
Pajaro Valley Consolidated.....	4,527	
		567,208
Shasta—		
Central Pacific.....	1,428,893	
Pullman's Palace Car Co.....	5,634	
		1,434,527
Sierra—		
Central Pacific.....	37,428	
Nevada-California-Oregon.....	8,012	
Pullman's Palace Car Co.....	148	
		45,588
Siskiyou—		
Central Pacific.....	1,448,042	
Pullman's Palace Car Co.....	5,710	
		1,453,752
Solano—		
California Pacific.....	800,000	
Northern Railway.....	301,050	
Pullman's Palace Car Co.....	3,093	
		1,104,143

SCHEDULE F—Continued.

Showing Apportionment of Railroads to Counties for 1899.

Name of County and Road.	Amount Apportioned.	Total Assessment.
Sonoma—		
Northern Railway.....	\$274,680	
San Francisco and North Pacific.....	1,330,994	
North Pacific Coast.....	184,615	
Gualala River.....	23,333	\$1,813,622
Stanislaus—		
Central Pacific.....	393,955	
Southern Pacific.....	569,294	
San Francisco and San Joaquin Valley.....	145,320	
Sierra Railway of California.....	76,682	
Pullman's Palace Car Co.....	3,284	1,188,535
Sutter—		
Central Pacific.....	174,085	
Northern California.....	173,095	
Pullman's Palace Car Co.....	687	347,867
Tehama—		
Central Pacific.....	705,742	
Northern Railway.....	155,610	
Pullman's Palace Car Co.....	2,783	864,135
Tulare—		
Central Pacific.....	220,218	
Southern Pacific.....	1,074,610	
San Francisco and San Joaquin Valley.....	460,180	
Pullman's Palace Car Co.....	3,643	1,758,651
Tuolumne—		
Sierra Railway of California.....	103,318	103,318
Ventura—		
Southern Pacific.....	545,666	545,666
Yolo—		
California Pacific.....	620,000	
Northern Railway.....	511,200	
Pullman's Palace Car Co.....	907	1,132,107
Yuba—		
Central Pacific.....	276,274	
Northern California.....	81,055	
Pullman's Palace Car Co.....	1,090	358,419
Total		\$46,394,275

Railroad Property Assessed by County Assessors, such as Depots, Shops, Land, Material, etc., for 1899.

Alameda—	
Central Pacific Railroad.....	\$1,373,405
Southern Pacific Company.....	757,250
South Pacific Coast Railroad.....	121,650
Northern Railway.....	242,500
Amador—	
Northern Railway.....	4,975
Butte—	
Central Pacific Railroad.....	192,390
Northern California Railroad.....	3,800
Southern Pacific Company.....	3,200
Calaveras—	
Southern Pacific Railroad.....	4,020
Northern Railway.....	4,400

SCHEDULE F—Continued.

Railroad Property Assessed by County Assessors, such as Depots, Shops, Land, Material, etc., for 1899.

Colusa—	
Northern Railway.....	\$5,000
Contra Costa—	
Northern Railway.....	34,115
Southern Pacific Railroad.....	22,390
Southern Pacific Company.....	63,355
San Francisco and San Joaquin Valley Railroad.....	45,710
El Dorado—	
Northern Railway.....	9,400
Central Pacific Railroad.....	56,015
Fresno—	
Southern Pacific Railroad.....	501,257
Central Pacific Railroad.....	111,375
Pacific Improvement Company.....	248,591
San Francisco and San Joaquin Valley Railroad.....	35,886
Glenn—	
Northern Railway.....	18,695
Inyo—	
Carson and Colorado Railroad.....	7,050
Kern—	
Santa Fé Pacific Railroad.....	3,915
Southern Pacific Railroad.....	338,489
Kings—	
Southern Pacific Railroad.....	8,700
San Francisco and San Joaquin Valley Railroad.....	9,887
Lassen—	
Nevada-California-Oregon Railroad.....	3,390
Los Angeles—	
Southern Pacific Railroad.....	792,780
Southern California Railroad.....	143,545
Madera—	
Central Pacific Railroad.....	7,400
Southern Pacific Railroad.....	2,050
San Francisco and San Joaquin Valley Railroad.....	7,055
Marin—	
North Pacific Coast Railroad.....	69,150
San Francisco and North Pacific Railway.....	111,095
Mendocino—	
California and Northwestern Railroad.....	990
Gualala River Railway.....	130,332
Merced—	
Central Pacific Railroad.....	27,231
Southern Pacific Railroad.....	11,488
Pacific Improvement Company.....	192,196
San Francisco and San Joaquin Valley Railroad.....	18,077
Mono—	
Carson and Colorado Railroad.....	1,150
Monterey—	
Southern Pacific Railroad.....	43,435
Pajaro Valley Consolidated Railroad.....	250
Napa—	
California Pacific Railroad.....	36,865
Nevada—	
Central Pacific Railroad.....	182,145
Southern Pacific Company.....	16,060
Nevada County Narrow Gauge Railroad.....	17,450
Orange—	
Southern California Railway.....	25,210
Southern Pacific Railroad.....	80,390
Placer—	
Central Pacific Railroad.....	247,705
Nevada County Narrow Gauge Railroad.....	1,500
Plumas—	
Central Pacific Railroad.....	22,888
Sierra Valleys Railway.....	1,150
Riverside—	
Southern Pacific Railroad.....	203,010
Southern California Railway.....	32,128

SCHEDULE F—Continued.

*Railroad Property Assessed by County Assessors, such as Depots, Shops,
Land, Material, etc., for 1899.*

Sacramento—	
Central Pacific Railroad	\$503,500
Northern Railway	3,050
San Benito—	
Southern Pacific Railroad	21,655
San Bernardino—	
Santa Fé Pacific Railroad	78,445
Southern Pacific Railroad	39,545
Southern California Railway	49,950
Southern California Motor Road	5,455
Randsburg Railway	500
San Diego—	
Southern Pacific Railroad	9,732
Southern California Railway	81,728
San Francisco—	
North Pacific Coast Railroad	76,897
South Pacific Coast Railroad	52,500
California Northwestern Railroad	108,316
Central Pacific Railroad	381,745
Southern Pacific Railroad	1,242,840
Central and Southern Pacific Railroads	676,630
San Francisco and San Mateo Electric Road	135,000
San Joaquin—	
Central Pacific Railroad	64,089
Southern Pacific Railroad	18,760
Pacific Improvement Company	15,222
San Francisco and San Joaquin Valley Railroad	79,047
Alameda and San Joaquin Railroad	35,253
San Luis Obispo—	
Pacific Coast Railroad	35,778
Southern Pacific Railroad	64,340
San Mateo—	
Southern Pacific Railroad	48,435
Santa Barbara—	
Pacific Coast Railroad	3,670
Southern Pacific Railroad	55,825
Santa Clara—	
Central Pacific Railroad	1,020
Southern Pacific Railroad	132,365
South Pacific Coast Railroad	31,145
Santa Cruz—	
South Pacific Coast Railroad	24,710
Southern Pacific Railroad	27,885
Pajaro Valley Railroad	2,210
Shasta—	
Central Pacific Railroad	621,142
Sierra—	
Central Pacific Railroad	223,346
Siskiyou—	
Central Pacific Railroad	1,292,645
Solano—	
Northern Railway	10,075
California Pacific Railroad	7,575
Sonoma—	
California Northwestern Railway	47,240
North Pacific Coast Railroad	5,080
Southern Pacific Railroad	22,100
Stanislaus—	
Central Pacific Railroad	17,595
Southern Pacific Railroad	59,005
Pacific Improvement Company	62,485
San Francisco and San Joaquin Valley Railroad	12,600
Sierra Railroad of California	1,180
Sutter—	
Northern California Railway	3,230
Central Pacific Railroad	3,460
Tehama—	
Central Pacific Railroad	118,480
Southern Pacific (Northern Railway)	18,700
Pacific Improvement Company	51,290

SCHEDULE F—*Continued.**Railroad Property Assessed by County Assessors, such as Depots, Shops, Land, Material, etc., for 1899.*

Trinity—		
Central Pacific (Land)		\$205,780
Tulare—		
Southern Pacific Railroad		108,187
Southern Pacific Company		6,700
Central Pacific Railroad		3,450
San Francisco and San Joaquin Valley Railroad		44,147
Tuolumne—		
Sierra Railway of California		4,115
Ventura—		
Southern Pacific Railroad		42,730
Yolo—		
Southern Pacific Railroad		30,360
Southern Pacific Railroad (Capay Land Company)		74,340
Northern Railway		4,150
Yuba—		
Central Pacific Railroad		50,620
Northern California Railway		2,620

Showing Assessment of Railways (Electric, Motor, Street, and Steam) Operated in but One County, made by County Assessors.

Alameda—		
California Railway (steam and electric)	5 miles	\$25,000
Oakland Railroad Company (cable and electric)	7.27 miles	298,550
Oakland, San Leandro and Haywards Railroad (electric)	19.24 miles	270,600
Highland Park and Fruitvale Railroad (electric)	6.35 miles	35,875
Claremont, University and Ferries Railroad (horse)	3.51 miles	13,400
Oakland Transit Company (electric)	42.72 miles	680,775
Oakland, Brooklyn and Fruitvale Railroad (no road)		6,350
Colusa—		
Colusa and Lake Railroad (steam)	22 miles	60,000
Contra Costa—		
Pittsburg Railroad (steam)	5.66 miles	10,950
Empire Railroad (steam)	8 miles	7,285
Del Norte—		
Hobbs, Wall & Co. (logging)	17 miles	33,500
C. C. M. & T. Co. (logging)	5 miles	3,500
Del Norte Commercial Company (logging)	2 miles	1,000
Fresno—		
San Joaquin Valley Railroad (steam)		100,910
Fresno Street Railroad (horse)		4,900
Fresno, Belmont and Yosemite (horse)		1,800
Humboldt—		
Eel River and Eureka (steam)	23 miles	115,000
Eureka and Klamath (steam)	12 miles	48,000
Arcata and Mad River Narrow Gauge (steam)	18 miles	54,000
Excelsior Redwood Company (logging)	7 miles	14,000
Eureka and Klamath (logging)	5.50 miles	16,500
McKay & Co. (logging)	6 miles	18,000
Flanigan, Brosnan & Co. (logging)	5.40 miles	18,900
Buckport and Eel River (logging)	8 miles	24,000
Pacific Lumber Company (logging)	15 miles	52,800
Eel River Valley Lumber Company (logging)	3 miles	7,500
Los Angeles—		
Los Angeles Railway Company		738,455
Los Angeles and Pacific Railway Company		152,585
Redondo Beach Railway Company		85,625
Los Angeles Traction Company		145,440
Los Angeles and Pasadena Electric Railway		137,370
Los Angeles Terminal Railway		280,740
Pasadena and Mount Lowe Railway		31,315
Temple Street Railway Company		21,325
Main and Fifth Street Railway		6,745
Pomona Street Railway		1,185

SCHEDULE F—Continued.

*Showing Assessment of Railways (Electric, Motor, Street, and Steam)
Operated in but One County, made by County Assessors.*

Marin—		
San Rafael and San Quentin Railroad	3½ miles	\$14,300
Mill Valley and Mount Tamalpais Railroad	7½ miles	38,000
Monterey—		
Salinas Street Railway (steam)	5 miles	5,000
Monterey and Pacific Grove (horse)	4¼ miles	4,250
Orange—		
Santa Ana and Newport Railroad		64,280
Santa Ana and Orange Motor Road	3.22 miles	2,690
Anaheim Street Car Company		70
Riverside—		
Perris and Lakeview Railway (no rails laid)		12,075
Elsinore, Pomona and Los Angeles Railway (no rails laid)		13,047
Riverside and Arlington Street Railway		5,250
Sacramento—		
Sacramento Electric Street Railway	19½ miles	83,500
San Bernardino—		
California and Eastern (steam)	29.4 miles	50,590
Redlands and San Bernardino Motor Road	10 miles	20,875
San Bernardino, Arrowhead and Waterman	6¼ miles	3,975
Ontario Electric Railway	6 miles	6,995
Redlands Street Railway	2 miles	1,150
San Diego—		
San Diego Electric Railroad		13,300
San Francisco—		
California Street (cable)		1,072,120
Geary Street (cable)		562,743
Market Street (electric, cable, motor, horse)		14,390,541
Presidio and Ferries (cable, horse)		57,275
Sutro (electric)		73,550
Sutter Street (cable, horse)		1,186,640
San Francisco and San Mateo (electric) (assessed by State Board)		138,784
San Joaquin—		
Stockton Electric Railroad		30,367
San Luis Obispo—		
Paso Robles Street Railroad		800
San Luis Obispo Railroad		1,100
Santa Clara—		
Alum Rock Railroad		14,845
North Side Horse Railroad		2,170
San José and Santa Clara Railroad		56,445
San José Railroad		61,620
Santa Clara Valley Railroad		2,660
Santa Cruz—		
Santa Cruz Electric Railway		14,365
East Santa Cruz Street Railroad (horse)		6,145
Shasta—		
Iron Mountain Railway	10.89 miles	98,010
J. E. Terry's Railroad	15.60 miles	15,600
J. E. Terry's (logging)	2.50 miles	2,500
Red Cross Lumber Company's Railroad	2.40 miles	6,300
Siskiyou—		
Yreka Railroad		30,000
Leland, Wood & Sheldon (logging)		5,505
McCloud River Railroad (steam)		72,450
Sonoma—		
Central Street Railroad		3,480
Santa Rosa Street Railroad		850
Sutter—		
Marysville and Yuba City Street Railway		1,000
Tulare—		
Visalia and Tulare Railroad	11 miles	16,330
Visalia Railroad	7½ miles	31,525
Ventura—		
Ventura and Ojai Valley	15 miles	51,270
Ventura and Ojai Valley Street Railroad		1,000
Yuba—		
Marysville and Yuba City Street Railway		5,225

VALUATIONS AND RATES OF TAXATION—1900.

SCHEDULE A.

Showing Amount of Property upon which the State Rate of Taxation was Based, and the Rate for 1900.

Value returned by Auditors	\$1,170,516,320
Railroad assessment by Board	47,711,755
Amount upon which tax is based	<u>\$1,218,228,075</u>

Amount to be Raised for Fifty-second Fiscal Year.

		Rate.
General Fund	\$2,946,222	25.5
School Fund	2,433,340	21.0
Interest and Sinking Fund	141,435	1.3
University Fund		2.0
Total	<u>\$5,520,997</u>	

SCHEDULE B.

Number of Acres of Land Assessed, as per Auditors' Statements, and Valuation of Real Estate and Improvements, for 1900.

Counties.	Acres.	Value of Real Estate other than City and Town Lots.	Value of City and Town Lots.	Value of All Real Estate.	Value of Improvements on Real Estate other than City and Town Lots.	Value of Improvements on City and Town Lots.	Value of All Improvements.
Alameda.....	440,264	\$14,691,500	\$33,164,475	\$47,855,975	\$4,225,901	\$22,946,250	\$27,172,151
Alpine.....	47,900	137,364	615	137,979	107,798	2,380	110,178
Amador.....	270,458	2,159,073	267,950	2,427,023	640,009	681,476	1,321,485
Butte.....	825,277	7,851,355	792,010	8,643,365	1,042,390	1,188,280	2,230,670
Calaveras.....	432,882	2,808,695	170,355	2,979,050	937,100	527,345	1,464,445
Colusa.....	600,149	8,598,075	280,376	8,878,451	495,239	556,779	1,052,018
Contra Costa.....	439,715	8,304,640	473,210	8,777,850	1,863,790	1,018,460	2,882,250
Del Norte.....	147,126	1,316,335	62,745	1,379,080	139,590	142,025	281,615
El Dorado.....	522,697	1,854,655	139,705	1,994,360	679,050	437,610	1,116,660
Fresno.....	2,061,950	15,444,942	3,458,916	18,903,858	2,631,252	2,279,611	4,960,863
Glenn.....	613,000	7,590,478	163,067	7,753,545	513,220	191,380	704,600
Humboldt.....	1,315,186	9,305,994	2,181,605	11,487,599	1,008,705	1,555,165	2,563,870
Inyo.....	207,284	802,955	63,901	866,856	340,448	144,787	485,233
Kern.....	2,806,076	7,880,325	1,052,501	8,932,826	889,436	1,053,608	1,943,044
Kings.....	624,075	4,475,836	397,966	4,863,802	459,780	450,337	910,117
Lake.....	345,552	1,741,633	180,091	1,921,724	470,777	218,818	689,595
Lassen.....	424,370	1,511,853	44,881	1,556,734	379,900	127,655	507,555
Los Angeles.....	1,096,263	18,647,695	39,629,475	57,677,170	3,939,055	22,297,945	26,297,000
Madera.....	731,444	3,530,700	236,240	3,766,940	359,700	185,050	544,750
Marin.....	326,208	5,321,110	2,100,550	7,421,660	1,101,925	1,639,210	2,741,135
Mariposa.....	344,552	1,373,257	42,895	1,416,152	283,748	86,410	370,158
Mendocino.....	1,421,988	6,436,035	516,193	6,952,228	977,528	748,493	1,726,021
Merced.....	1,164,487	9,052,631	469,985	9,522,616	572,688	530,255	1,102,943
Modoc.....	343,833	1,183,922	36,790	1,220,712	372,713	141,760	514,473
Mono.....	151,401	476,210	19,620	495,830	186,465	139,655	326,120
Monterey.....	1,411,019	10,592,510	1,434,770	12,027,280	1,426,165	1,106,070	2,532,255
Napa.....	400,525	4,558,245	1,155,355	5,713,600	1,799,755	1,750,825	3,550,580
Nevada.....	462,365	2,443,760	399,205	2,842,965	1,215,095	1,225,840	2,440,935

Orange	395,151	5,431,285	1,345,740	6,777,025	1,112,245	1,161,985	2,274,230
Placer	624,443	3,751,940	379,890	4,131,830	1,039,495	869,450	1,908,945
Plumas	323,012	1,244,274	28,494	1,272,768	294,674	136,393	431,067
Riverside	809,712	5,214,841	1,141,446	6,356,287	1,881,434	1,208,440	3,089,874
Sacramento	608,382	10,722,250	8,474,920	19,197,170	1,625,350	7,146,080	8,771,410
San Benito	543,262	3,791,035	285,105	4,076,140	577,815	376,545	954,360
San Bernardino	505,371	7,317,925	1,293,570	8,557,495	2,222,460	1,296,560	3,519,020
San Diego	1,214,574	4,461,328	7,357,455	11,818,783	1,084,698	3,101,701	4,186,399
San Francisco	27,000	2,646,960	187,810,465	190,457,425	398,050	97,675,170	98,073,224
San Joaquin	878,375	13,112,582	6,001,508	19,114,090	1,623,967	4,802,694	6,426,661
San Luis Obispo	1,524,353	7,229,846	819,715	8,049,561	715,087	853,389	1,568,476
San Mateo	287,048	6,888,155	1,614,805	8,502,960	2,409,420	990,055	3,399,475
Santa Barbara	1,125,705	6,189,373	2,503,905	8,693,275	975,635	1,571,090	2,546,725
Santa Clara	718,318	21,073,190	11,054,390	32,127,580	7,326,155	6,580,635	13,906,790
Santa Cruz	264,005	4,016,445	2,230,625	6,247,070	1,269,360	1,468,645	2,738,045
Shasta	1,158,229	3,643,888	438,257	4,082,145	1,041,499	687,631	1,729,130
Sierra	286,901	907,180	32,665	939,845	184,810	143,050	327,860
Siskiyou	1,427,028	4,108,389	245,605	4,353,994	934,730	558,410	1,493,140
Solano	510,398	9,721,316	1,030,289	10,801,605	1,385,309	2,176,391	3,561,700
Sonoma	869,667	11,937,470	2,972,325	14,909,795	3,198,400	2,727,580	5,925,980
Stanislaus	880,581	7,158,935	495,095	7,654,030	693,285	729,520	1,422,805
Sutter	374,513	4,193,446	75,225	4,268,671	673,723	160,235	833,958
Tehama	1,149,858	5,857,700	514,865	6,372,565	831,210	811,040	1,642,250
Trinity	432,689	727,990	28,600	756,590	364,620	85,585	450,205
Tulare	1,407,287	9,039,785	773,108	9,812,893	1,012,594	997,205	2,009,799
Tuolumne	370,689	3,149,280	227,390	3,376,670	1,180,885	464,950	1,615,835
Ventura	531,517	4,628,803	443,402	5,072,205	637,578	638,570	1,276,148
Yolo	593,842	10,166,795	820,785	10,987,580	1,044,133	1,372,830	2,416,963
Yuba	344,735	2,237,870	437,265	2,675,135	449,615	843,285	1,292,900
Totals	40,224,635	\$340,062,059	\$329,798,356	\$669,860,415	\$67,417,438	\$205,008,593	\$272,426,031

SCHEDULE C.

Value of Property Mortgaged, Assessed Value of Mortgages, etc., 1900.

Counties.	Assessed Value of Property Mortgaged.	Value of Mortgages.	Per Cent of Mortgages to Total Value Real Estate and Im- provements.
Alameda	\$32,450,000	\$17,149,000	22.85
Alpine	18,000	14,300	5.78
Amador	401,184	401,184	10.94
Butte	2,832,450	2,100,820	19.32
Calaveras	910,450	395,435	8.88
Colusa	3,119,166	1,911,981	19.25
Contra Costa	3,500,000	2,957,265	25.36
Del Norte	259,165	157,870	9.51
El Dorado	597,180	394,375	12.67
Fresno	6,999,957	5,194,360	21.76
Glenn	1,954,720	1,608,633	19.06
Humboldt	3,165,570	2,148,243	15.28
Inyo	251,130	155,555	11.50
Kern	1,306,617	1,031,577	9.49
Kings	1,697,750	1,178,092	20.40
Lake	505,840	361,315	13.90
Lassen	534,827	250,670	12.14
Los Angeles	10,191,560	7,091,420	8.44
Madera	1,147,885	662,215	15.12
Marin	2,913,775	2,407,280	23.68
Mariposa	174,656	110,702	6.20
Mendocino	2,812,648	1,475,203	17.00
Merced	2,705,952	2,018,671	20.58
Modoc	225,000	170,459	9.82
Mono	60,000	47,560	5.78
Monterey	3,827,420	2,121,270	14.57
Napa	1,862,285	1,562,285	16.86
Nevada	685,700	466,480	8.82
Orange	415,686	346,405	3.82
Placer	1,770,515	1,123,755	18.42
Plumas	305,835	190,633	11.18
Riverside	1,398,430	871,297	9.22
Sacramento	5,833,000	2,636,040	9.42
San Benito	1,816,250	1,286,115	25.56
San Bernardino	1,972,200	1,436,800	11.89
San Diego	2,950,000	2,020,925	12.62
San Francisco	72,912,400	49,836,106	17.27
San Joaquin	9,600,000	4,961,229	19.42
San Luis Obispo	3,408,000	2,248,740	23.38
San Mateo	1,975,825	1,280,500	10.75
Santa Barbara	3,107,655	2,456,647	21.85
Santa Clara	12,500,000	9,157,915	19.90
Santa Cruz	2,176,365	1,603,715	17.96
Shasta	791,239	490,899	8.44
Sierra	95,470	81,090	6.40
Siskiyou	1,130,600	790,504	13.52
Solano	2,738,503	2,738,503	19.00
Sonoma	4,930,170	3,628,760	17.46
Stanislaus	3,932,145	2,515,870	27.71
Sutter	1,605,905	1,016,836	19.92
Tehama	2,148,695	1,311,600	16.36
Trinity	138,862	117,045	9.70
Tulare	2,907,005	2,184,678	18.48
Tuolumne	650,600	367,855	7.32
Ventura	1,348,145	1,097,782	17.29
Yolo	3,231,954	2,313,631	17.35
Yuba	965,985	740,825	18.69
Totals	\$235,868,316	\$156,396,920	-----

SCHEDULE D.

Showing Value of all Property as Returned by Auditors, and after Equalization by the Board, 1900.

Counties.	Value of Real Estate and Improvements.	Personal Property, other than Money and Solvent Credits.	Money and Solvent Credits.	Value Preceding Columns.	Railroad Assessment.	Total Value of All Property.
Alameda	\$75,028,126	\$9,506,041	\$463,428	\$84,997,595	\$1,925,165	\$86,922,760
Alpine	248,157	35,197	2,300	285,654	-----	285,654
Amador	3,748,508	555,888	16,800	4,321,196	84,000	4,405,196
Butte	10,874,035	1,977,006	179,215	13,030,256	932,423	13,962,679
Calaveras	4,443,495	703,590	26,300	5,173,385	109,830	5,283,215
Colusa	9,930,469	1,580,034	115,187	11,625,690	356,055	11,981,745
Contra Costa	11,660,100	3,919,965	41,565	15,621,630	882,677	16,504,307
Del Norte	1,660,695	215,350	12,480	1,888,525	-----	1,888,525
El Dorado	3,111,020	563,275	24,100	3,698,395	320,775	4,019,170
Fresno	23,864,721	2,879,809	135,281	26,879,811	2,527,854	29,407,665
Glenn	8,453,145	1,333,627	110,227	9,901,999	479,850	10,381,849
Humboldt	14,051,469	2,268,490	557,159	16,877,118	-----	16,877,118
Inyo	1,352,091	422,171	5,147	1,779,409	82,791	1,862,200
Kern	10,875,870	2,329,712	87,439	13,293,021	1,887,144	15,170,165
Kings	5,773,919	834,410	80,217	6,688,546	439,390	7,127,936
Lake	2,611,319	373,742	42,107	3,027,168	-----	3,027,168
Lassen	2,064,289	900,273	117,645	3,082,207	149,135	3,231,342
Los Angeles	83,974,170	12,664,352	793,755	97,432,277	2,703,793	100,136,070
Madera	4,311,690	921,588	13,155	5,246,433	915,119	6,161,552
Marin	10,162,795	1,023,210	36,440	11,222,445	772,269	11,951,714
Mariposa	1,786,310	242,509	280	2,029,099	-----	2,029,099
Mendocino	8,678,249	1,490,076	98,561	10,266,886	328,789	10,595,675
Merced	10,625,559	1,461,659	39,770	12,126,988	1,481,450	13,608,438
Modoc	1,735,185	1,098,317	51,564	2,885,066	-----	2,885,066
Mono	821,950	315,567	12,149	1,149,666	37,209	1,186,875
Monterey	14,559,515	1,565,370	86,345	16,211,230	1,560,788	17,772,018
Napa	9,264,180	1,538,970	328,705	11,131,855	498,015	11,629,870
Nevada	5,283,900	1,066,135	42,885	6,392,920	622,585	7,015,505
Orange	9,051,255	1,139,790	106,005	10,297,050	707,418	11,004,468
Placer	6,100,755	825,833	100,015	7,026,623	1,989,143	9,015,766
Plumas	1,703,835	346,581	7,100	2,057,516	44,975	2,102,491
Riverside	9,446,161	906,730	111,159	10,464,050	1,689,963	12,154,013
Sacramento	27,968,580	4,524,780	399,670	32,893,030	1,233,690	34,126,720
San Benito	5,030,500	730,375	69,435	5,830,310	185,325	6,015,635
San Ber'dino	12,076,515	1,133,760	80,225	13,290,500	2,683,627	15,974,127
San Diego	16,005,182	2,329,630	58,124	18,392,936	1,668,610	20,161,546
S. Francisco	288,530,645	85,791,831	35,832,828	410,155,304	270,545	410,425,849
San Joaquin	25,540,751	3,970,419	428,116	29,939,286	2,042,735	31,982,021
S. L. Obispo	9,618,037	1,566,527	221,674	11,406,238	892,063	12,298,301
San Mateo	11,902,435	1,915,905	289,560	14,107,900	313,110	14,421,010
S. Barbara	11,240,003	1,580,910	50,985	12,871,898	735,222	13,607,120
Santa Clara	46,034,370	4,300,470	402,625	50,737,465	1,241,023	51,978,488
Santa Cruz	8,985,075	1,110,460	94,045	10,189,580	580,452	10,770,032
Shasta	5,811,275	1,774,434	86,279	7,671,988	1,434,527	9,106,515
Sierra	1,267,705	164,060	5,425	1,437,190	47,191	1,484,381
Siskiyou	5,847,134	1,283,524	224,213	7,354,871	1,453,752	8,808,623
Solano	14,363,305	2,154,129	227,563	16,744,997	774,318	17,519,315
Sonoma	20,835,775	2,681,985	376,510	23,894,270	1,859,402	25,753,672
Stanislaus	9,076,835	1,646,270	101,595	10,824,700	1,216,934	12,041,634
Sutter	5,102,629	794,884	73,742	5,971,255	454,387	6,425,642
Tehama	8,014,815	1,797,495	151,320	9,963,630	890,070	10,853,700
Trinity	1,206,795	245,028	31,213	1,483,036	-----	1,483,036
Tulare	11,822,692	1,563,478	138,045	13,524,215	1,811,006	15,335,221
Tuolumne	5,022,505	640,830	29,210	5,692,545	152,655	5,845,200
Ventura	6,348,353	1,059,715	136,110	7,544,178	911,400	8,455,578
Yolo	13,404,543	1,683,620	290,716	15,378,879	922,807	16,301,686
Yuba	3,968,035	932,710	203,665	5,104,410	408,299	5,512,709
Totals	\$942,286,446	\$184,382,496	\$43,847,378	\$1,170,516,320	\$47,711,755	\$1,218,228,075

SCHEDULE E.

Showing Assessment and Apportionment of Railways for 1900.

Name of each Railway Assessed, and Name of the County to which Assessment is Apportioned.	Number of Miles of Railway Operated in the State.	Number of Miles of each Railway in each County.	Value per Mile of each Railway.	Total Assessment of each Railway.	Amount of Assessment of each Railway Apportioned to each County.
Central Pacific Railroad.....	746.76	-----	\$17,408 53	\$13,000,000	-----
Alameda.....		83.14	-----	-----	\$1,447,346
Butte.....		45.00	-----	-----	783,384
Fresno.....		32.00	-----	-----	557,073
Madera.....		29.06	-----	-----	505,892
Merced.....		36.75	-----	-----	639,764
Nevada.....		30.25	-----	-----	526,608
Placer.....		112.75	-----	-----	1,962,813
Sacramento.....		41.00	-----	-----	713,750
San Francisco.....		2.46	-----	-----	42,825
San Joaquin.....		56.75	-----	-----	987,935
Santa Clara.....		8.50	-----	-----	147,973
Shasta.....		82.08	-----	-----	1,428,893
Sierra.....		2.15	-----	-----	37,428
Siskiyou.....		83.18	-----	-----	1,448,042
Stanislaus.....		22.63	-----	-----	393,955
Sutter.....		10.00	-----	-----	174,085
Tehama.....		40.54	-----	-----	705,742
Tulare.....		12.65	-----	-----	220,218
Yuba.....		15.87	-----	-----	276,274
South Pacific Coast Railroad.....	96.16	-----	10,500 00	1,009,680	-----
Alameda.....		31.46	-----	-----	330,330
Santa Clara.....		37.00	-----	-----	388,500
Santa Cruz.....		27.70	-----	-----	290,850
Southern Pacific Railroad.....	2,122.21	-----	10,500 00	22,283,205	-----
Alameda.....		11.90	-----	-----	124,950
Amador.....		8.06	-----	-----	84,000
Butte.....		13.90	-----	-----	145,950
Calaveras.....		10.46	-----	-----	109,830
Colusa.....		33.91	-----	-----	356,055
Contra Costa.....		80.05	-----	-----	840,525
El Dorado.....		30.55	-----	-----	320,775
Fresno.....		148.93	-----	-----	1,563,765
Glenn.....		45.70	-----	-----	479,850
Kern.....		131.23	-----	-----	1,377,915
Kings.....		23.32	-----	-----	244,860
Los Angeles.....		199.18	-----	-----	2,091,390
Madera.....		21.00	-----	-----	220,500
Merced.....		52.50	-----	-----	551,250
Monterey.....		130.03	-----	-----	1,365,315
Napa.....		47.43	-----	-----	498,015
Orange.....		25.15	-----	-----	264,075
Riverside.....		92.60	-----	-----	972,300
Sacramento.....		49.25	-----	-----	517,125
San Benito.....		17.65	-----	-----	185,325
San Bernardino.....		33.06	-----	-----	347,130
San Diego.....		87.79	-----	-----	921,795
San Francisco.....		7.96	-----	-----	77,280
San Joaquin.....		71.59	-----	-----	751,695
San Luis Obispo.....		72.60	-----	-----	762,300
San Mateo.....		25.10	-----	-----	263,550
Santa Barbara.....		58.57	-----	-----	614,985
Santa Clara.....		67.10	-----	-----	704,550
Santa Cruz.....		27.15	-----	-----	285,075
Solano.....		73.45	-----	-----	771,225
Sonoma.....		30.52	-----	-----	320,460
Stanislaus.....		56.86	-----	-----	597,030
Sutter.....		26.63	-----	-----	279,615
Tehama.....		17.29	-----	-----	181,545
Tulare.....		107.33	-----	-----	1,126,965
Ventura.....		86.80	-----	-----	911,400
Yolo.....		87.80	-----	-----	921,900
Yuba.....		12.47	-----	-----	130,935

SCHEDULE E—Continued.

Showing Assessment and Apportionment of Railways for 1900.

Name of each Railway Assessed, and Name of the County to which Assessment is Apportioned.	Number of Miles of Railway Operated in the State.	Number of Miles of each Railway in each County.	Value per Mile of each Railway.	Total Assessment of each Railway.	Amount of Assessment of each Railway Apportioned to each County.
Southern California Motor Road	12.00		\$5,000 00	\$60,000	
Riverside		6.00			\$30,000
San Bernardino		6.00			30,000
Carson and Colorado Railroad	107.62		1,115 03	120,000	
Inyo		74.25			82,791
Mono		33.37			37,209
San Francisco and North Pacific Railroad	165.32		12,097 74	2,000,000	
Marin		29.50			356,884
Mendocino		25.80			312,122
Sonoma		110.02			1,330,994
Santa Fé Pacific Railroad	242.542		5,706 27	1,384,000	
Kern		35.914			204,930
San Bernardino		206.628			1,179,070
San Francisco and San Joaquin Valley Railway	306.03		7,000 00	2,142,210	
Fresno		56.99			398,930
Kern		41.47			290,290
Kings		27.79			194,530
Madera		26.47			185,290
Merced		40.80			285,600
San Joaquin		26.01			182,070
Stanislaus		20.76			145,320
Tulare		65.74			460,180
Southern California Railway	487.265		7,000 00	3,410,855	
Los Angeles		85.754			600,278
Orange		62.691			438,837
Riverside		97.076			679,532
San Bernardino		136.592			956,144
San Diego		105.152			736,064
North Pacific Coast Railroad	84.50		7,100 58	600,000	
Marin		58.50			415,385
Sonoma		26.00			184,615
Pacific Coast Railway	76.10		3,285 15	250,000	
San Luis Obispo		39.50			129,763
Santa Barbara		36.60			120,237
Pajaro Valley Consolidated Railroad	34.90		5,730 66	200,000	
Monterey		34.11			195,473
Santa Cruz		.79			4,527
Nevada County Narrow Gauge Railroad	22.50		5,000 00	112,000	
Nevada		18.78			93,900
Placer		3.72			18,600
Nevada-California-Oregon Ry.	50.86		2,949 23	150,000	
Lassen		47.60			140,385
Sierra		3.26			9,615
Alameda and San Joaquin Railroad	35.88		3,500 00	125,580	
Alameda		2.79			9,765
San Joaquin		33.09			115,815
Sierra Railway of California	56.50		4,070 80	230,000	
Stanislaus		19.00			77,345
Tuolumne		37.50			152,655
Randsburg Railway	29.66		5,057 32	150,000	
Kern		.66			3,337
San Bernardino		29.00			146,663
Gualala River Railroad	12.00		3,333 33	40,000	
Mendocino		5.00			16,667
Sonoma		7.00			23,333

SCHEDULE E—*Continued.**Showing Assessment and Apportionment of Railways for 1900.*

Name of each Railway Assessed, and Name of the County to which Assessment is Apportioned.	Number of Miles of Railway Operated in the State.	Number of Miles of each Railway in each County.	Value per Mile of each Railway.	Total Assessment of each Railway.	Amount of Assessment of each Railway Apportioned to each County.
Sierra Valley Railway -----	30.70	-----	\$1,750 00	\$53,725	-----
Lassen -----	-----	5.00	-----	-----	\$8,750
Plumas -----	-----	25.70	-----	-----	44,975
California and Nevada Railroad -----	23.00	-----	2,173 91	50,000	-----
Alameda -----	-----	5.50	-----	-----	11 957
Contra Costa -----	-----	17.50	-----	-----	38,043
San Francisco and San Mateo Electric Railroad -----	28.329	-----	7,059 90	200,000	-----
San Francisco -----	-----	21.309	-----	-----	150,440
San Mateo -----	-----	7.020	-----	-----	49,560
Pullman's Rolling Stock— Operated on Santa Fé and Southern California -----	556.00	-----	71 94	40,000	-----
Kern -----	-----	35.91	-----	-----	2,584
Los Angeles -----	-----	56.45	-----	-----	4,061
Orange -----	-----	62.63	-----	-----	4,506
Riverside -----	-----	24.66	-----	-----	1,774
San Bernardino -----	-----	310.66	-----	-----	22,350
San Diego -----	-----	65.69	-----	-----	4,725
Pullman's Palace Car Co.— (Rolling Stock— $\frac{1}{4}$ interest operated on Central Pacific and Southern Pacific) -----	1,456.84	-----	68 64	100,000	-----
Alameda -----	-----	11.90	-----	-----	817
Butte -----	-----	45.00	-----	-----	3,089
Contra Costa -----	-----	59.85	-----	-----	4,109
Fresno -----	-----	117.80	-----	-----	8,086
Kern -----	-----	117.83	-----	-----	8,088
Los Angeles -----	-----	117.48	-----	-----	8,064
Madera -----	-----	50.06	-----	-----	3,437
Merced -----	-----	70.45	-----	-----	4,836
Nevada -----	-----	30.25	-----	-----	2,077
Placer -----	-----	112.75	-----	-----	7,730
Riverside -----	-----	92.60	-----	-----	6,357
Sacramento -----	-----	41.00	-----	-----	2,815
San Bernardino -----	-----	33.06	-----	-----	2,270
San Diego -----	-----	87.79	-----	-----	6,026
San Joaquin -----	-----	76.05	-----	-----	5,220
Shasta -----	-----	82.08	-----	-----	5,634
Sierra -----	-----	2.15	-----	-----	148
Siskiyou -----	-----	83.18	-----	-----	5,710
Solano -----	-----	45.05	-----	-----	3,093
Stanislaus -----	-----	47.83	-----	-----	3,284
Sutter -----	-----	10.00	-----	-----	687
Tehama -----	-----	40.54	-----	-----	2,783
Tulare -----	-----	53.07	-----	-----	3,643
Yolo -----	-----	13.20	-----	-----	907
Yuba -----	-----	15.87	-----	-----	1,090

SCHEDULE F.

Showing Apportionment of Railways to Counties for 1900.

Name of County and Road.	Amount Apportioned.	Total Assessment.
Alameda—		
Central Pacific.....	\$1,447,346	
South Pacific Coast.....	330,330	
Southern Pacific.....	124,950	
Alameda and San Joaquin.....	9,765	
California and Nevada.....	11,957	
Pullman's Palace Car Co.....	817	
		\$1,925,165
Amador—		
Southern Pacific.....	84,000	
		84,000
Butte—		
Central Pacific.....	783,384	
Southern Pacific.....	145,950	
Pullman's Palace Car Co.....	3,089	
		932,423
Calaveras—		
Southern Pacific.....	109,830	
		109,830
Colusa—		
Southern Pacific.....	356,055	
		356,055
Contra Costa—		
Southern Pacific.....	840,525	
California and Nevada.....	38,043	
Pullman's Palace Car Co.....	4,109	
		882,677
El Dorado—		
Southern Pacific.....	320,775	
		320,775
Fresno—		
Central Pacific.....	557,073	
Southern Pacific.....	1,563,765	
San Francisco and San Joaquin Valley.....	398,930	
Pullman's Palace Car Co.....	8,086	
		2,527,854
Glenn—		
Southern Pacific.....	479,850	
		479,850
Inyo—		
Carson and Colorado.....	82,791	
		82,791
Kern—		
Southern Pacific.....	1,377,915	
Santa Fé Pacific.....	204,930	
San Francisco and San Joaquin Valley.....	290,290	
Randsburg Railway.....	3,337	
Pullman's Palace Car Co.....	2,584	
Pullman's Palace Car Co.....	8,088	
		1,887,144
Kings—		
Southern Pacific.....	244,860	
San Francisco and San Joaquin Valley.....	194,530	
		439,390
Lassen—		
Nevada-California-Oregon.....	140,385	
Sierra Valleys.....	8,750	
		149,135
Los Angeles—		
Southern Pacific.....	2,091,390	
Southern California.....	600,278	
Pullman's Palace Car Co.....	4,061	
Pullman's Palace Car Co.....	8,064	
		2,703,793

SCHEDULE F—Continued.

Showing Apportionment of Railways to Counties for 1900.

Name of County and Road.	Amount Apportioned.	Total Assessment.
Madera—		
Central Pacific.....	\$505,892	
Southern Pacific.....	220,500	
San Francisco and San Joaquin Valley	185,290	
Pullman's Palace Car Co.....	3,437	
		\$915,119
Marin—		
California Northwestern.....	356,884	
North Pacific Coast.....	415,385	
		772,269
Mendocino—		
California Northwestern.....	312,122	
Gualala River	16,667	
		328,789
Merced—		
Central Pacific	639,764	
Southern Pacific.....	551,250	
San Francisco and San Joaquin Valley	285,600	
Pullman's Palace Car Co.....	4,836	
		1,481,450
Mono—		
Carson and Colorado	37,209	
		37,209
Monterey—		
Southern Pacific.....	1,365,315	
Pajaro Valley Consolidated	195,473	
		1,560,788
Napa—		
Southern Pacific.....	498,015	
		498,015
Nevada—		
Central Pacific.....	526,608	
Nevada County Narrow Gauge.....	93,900	
Pullman's Palace Car Co.....	2,077	
		622,585
Orange—		
Southern Pacific.....	264,075	
Southern California	438,837	
Pullman's Palace Car Co.....	4,506	
		707,418
Placer—		
Central Pacific.....	1,962,813	
Nevada County Narrow Gauge	18,600	
Pullman's Palace Car Co.....	7,730	
		1,989,143
Plumas—		
Sierra Valleys	44,975	
		44,975
Riverside—		
Southern Pacific.....	972,300	
Southern California Motor	30,000	
Southern California Railway	679,532	
Pullman's Palace Car Co.....	1,774	
Pullman's Palace Car Co.....	6,357	
		1,689,963
Sacramento—		
Central Pacific.....	713,750	
Southern Pacific.....	517,125	
Pullman's Palace Car Co.....	2,815	
		1,233,690
San Benito—		
Southern Pacific.....	185,325	
		185,325

SCHEDULE F—Continued.

Showing Apportionment of Railways to Counties for 1900.

Name of County and Road.	Amount Apportioned.	Total Assessment.
San Bernardino—		
Southern Pacific.....	\$347,130	
Southern California Motor.....	30,000	
Santa Fé Pacific.....	1,179,070	
Southern California Railway.....	956,144	
Randsburg Railway.....	146,663	
Pullman's Palace Car Co.....	22,350	
Pullman's Palace Car Co.....	2,270	
		\$2,683,627
San Diego—		
Southern Pacific.....	921,795	
Southern California.....	736,064	
Pullman's Palace Car Co.....	4,725	
Pullman's Palace Car Co.....	6,026	
		1,668,610
San Francisco—		
Central Pacific.....	42,825	
Southern Pacific.....	77,230	
San Francisco and San Mateo.....	150,440	
		270,545
San Joaquin—		
Central Pacific.....	987,935	
Southern Pacific.....	751,695	
San Francisco and San Joaquin Valley.....	182,070	
Alameda and San Joaquin.....	115,815	
Pullman's Palace Car Co.....	5,220	
		2,042,735
San Luis Obispo—		
Southern Pacific.....	762,300	
Pacific Coast.....	129,763	
		892,063
San Mateo—		
Southern Pacific.....	263,550	
San Francisco and San Mateo.....	49,560	
		313,110
Santa Barbara—		
Southern Pacific.....	614,985	
Pacific Coast.....	120,237	
		735,222
Santa Clara—		
Central Pacific.....	147,973	
South Pacific Coast.....	388,500	
Southern Pacific.....	704,550	
		1,241,023
Santa Cruz—		
South Pacific Coast.....	290,850	
Southern Pacific.....	285,075	
Pajaro Valley Consolidated.....	4,527	
		580,452
Shasta—		
Central Pacific.....	1,428,893	
Pullman's Palace Car Co.....	5,634	
		1,434,527
Sierra—		
Central Pacific.....	37,428	
Nevada-California-Oregon.....	9,615	
Pullman's Palace Car Co.....	148	
		47,191
Siskiyou—		
Central Pacific.....	1,448,042	
Pullman's Palace Car Co.....	5,710	
		1,453,752
Solano—		
Southern Pacific.....	771,225	
Pullman's Palace Car Co.....	3,093	
		774,318

SCHEDULE F—Continued.

Showing Apportionment of Railways to Counties for 1900.

Name of County and Road.	Amount Apportioned.	Total Assessment.
Sonoma—		
Southern Pacific	\$320,460	
California Northwestern	1,330,994	
North Pacific Coast	184,615	
Gualala River	23,333	\$1,859,402
Stanislaus—		
Central Pacific	393,955	
Southern Pacific	597,030	
San Francisco and San Joaquin Valley	145,320	
Sierra Railway of California	77,345	
Pullman's Palace Car Co.	3,284	1,216,934
Sutter—		
Central Pacific	174,085	
Southern Pacific	279,615	
Pullman's Palace Car Co.	687	454,387
Tehama—		
Central Pacific	705,742	
Southern Pacific	181,545	
Pullman's Palace Car Co.	2,783	890,070
Tulare—		
Central Pacific	220,218	
Southern Pacific	1,126,965	
San Francisco and San Joaquin Valley	460,180	
Pullman's Palace Car Co.	3,643	1,811,006
Tuolumne—		
Sierra Railway of California	152,655	152,655
Ventura—		
Southern Pacific	911,400	911,400
Yolo—		
Southern Pacific	921,900	
Pullman's Palace Car Co.	907	922,807
Yuba—		
Central Pacific	276,274	
Southern Pacific	130,935	
Pullman's Palace Car Co.	1,090	408,299
Total		\$47,711,755

VALUATIONS AND RATES OF TAXATION—1901.

SCHEDULE A.

Showing Amount of Property upon which the State Rate of Taxation was Based, and the Rate for 1901.

Value returned by Auditors	\$1,192,319,460
Railroad assessment by Board	49,121,485
Total	\$1,241,440,945
Deduction University and other State mortgages	1,250,000
Amount upon which tax is based	\$1,240,190,945

Amount to be Raised for Fifty-third Fiscal Year.

		Rate.
General Fund	\$2,750,000	23.3
School Fund	2,528,071	21.5
Interest and Sinking Fund	141,435	1.4
University Fund		2.0
Total	\$5,419,506	48.2

SCHEDULE B.

Number of Acres of Land Assessed, as per Auditors' Statements, and Valuation of Real Estate and Improvements, for 1901.

Counties.	Acres.	Value of Real Estate other than City and Town Lots.	Value of City and Town Lots.	Value of All Real Estate.	Value of Improvements on Real Estate other than City and Town Lots.	Value of Improvements on City and Town Lots.	Value of All Improvements.
Alameda.....	420,218	\$14,624,975	\$33,687,650	\$48,312,625	\$4,867,650	\$23,434,425	\$28,302,075
Alpine.....	51,287	143,320	640	143,960	110,593	2,465	113,058
Amador.....	266,986	2,276,975	264,130	2,541,105	709,052	699,052	1,408,862
Butte.....	805,861	7,901,095	742,389	8,643,484	1,039,870	1,202,900	2,242,770
Calaveras.....	451,782	2,783,115	172,090	2,955,205	900,415	600,540	1,500,955
Colusa.....	597,998	8,734,965	277,182	9,012,147	499,075	555,018	1,054,093
Contra Costa.....	454,642	8,394,980	533,310	8,928,290	2,196,755	798,045	2,994,800
Del Norte.....	145,668	1,447,900	61,885	1,509,485	138,170	148,830	307,000
El Dorado.....	541,337	1,845,620	136,700	1,984,320	662,775	421,710	1,084,485
Fresno.....	1,308,887	15,891,268	3,254,342	19,145,610	2,445,942	2,631,512	5,077,454
Glenn.....	621,120	7,539,538	163,445	7,702,983	533,855	202,575	736,430
Humboldt.....	1,348,618	10,163,458	2,266,570	12,430,028	986,670	1,667,495	2,654,165
Inyo.....	198,234	802,481	71,128	873,609	320,477	146,952	467,429
Kern.....	2,793,605	12,064,248	1,288,314	13,352,562	1,396,912	1,096,785	2,433,697
Kings.....	639,293	4,455,256	595,599	5,050,855	510,500	535,463	1,045,963
Lake.....	352,599	1,834,289	160,846	1,997,135	489,332	215,918	705,250
Lassen.....	538,626	1,562,389	48,151	1,610,540	386,163	137,075	523,238
Los Angeles.....	1,104,842	18,774,085	39,543,830	58,317,915	4,145,450	23,204,640	27,350,490
Madera.....	732,000	3,516,440	234,885	3,751,325	353,790	265,920	619,710
Marin.....	324,274	5,295,400	2,144,470	7,439,870	1,068,405	1,713,955	2,772,360
Mariposa.....	339,618	1,379,142	42,395	1,421,687	294,750	98,050	392,800
Mendocino.....	1,418,822	6,349,564	532,742	6,882,306	964,322	735,658	1,699,980
Merced.....	1,153,369	8,979,819	464,943	9,447,007	571,728	551,336	1,134,269
Modoc.....	374,087	1,217,488	36,197	1,253,685	364,942	156,800	521,742
Mono.....	152,252	468,137	19,680	487,817	295,280	109,710	344,990
Monterey.....	1,401,261	10,572,070	1,441,810	12,013,470	1,608,560	1,100,590	2,709,050
Napa.....	403,782	4,812,680	944,725	5,757,405	2,041,725	1,536,810	3,578,535
Nevada.....	458,473	2,345,490	398,070	2,743,560	1,349,845	1,250,715	2,600,560

Orange.....	428,098	5,470,840	1,336,405	6,806,895	1,169,505	1,189,650	2,359,155
Placer.....	620,203	3,799,995	369,590	4,162,405	1,098,955	847,790	1,946,745
Plumas.....	318,979	1,206,394	29,291	1,235,685	309,114	140,101	449,215
Riverside.....	926,957	5,014,320	1,131,313	6,145,633	1,994,905	1,281,590	3,276,495
Sacramento.....	608,002	10,750,560	8,386,320	19,136,880	1,609,010	7,305,270	8,957,580
San Benito.....	543,490	3,812,015	283,745	4,095,760	580,515	374,570	955,085
San Bernardino.....	505,722	7,209,250	1,421,325	8,630,575	2,181,450	1,473,300	3,654,750
San Diego.....	1,260,117	4,371,924	7,204,585	11,576,509	1,012,592	3,130,336	4,142,928
San Francisco.....	27,000	2,647,670	189,799,500	192,447,170	388,560	90,845,362	97,234,922
San Joaquin.....	867,847	13,281,505	6,099,880	19,381,381	1,605,014	4,795,377	6,490,391
San Luis Obispo.....	1,544,016	7,278,305	819,759	8,098,064	736,805	852,926	1,589,731
San Mateo.....	294,169	6,916,210	1,637,845	8,553,555	2,537,835	906,645	3,444,480
Santa Barbara.....	1,122,837	6,268,127	2,639,370	8,907,497	998,605	1,603,205	2,601,810
Santa Clara.....	718,032	21,099,130	10,943,835	32,042,965	7,150,485	6,537,725	13,688,205
Santa Cruz.....	264,361	4,234,260	2,249,620	6,483,880	1,370,610	1,465,545	2,836,155
Shasta.....	1,167,346	3,781,012	476,672	4,257,684	1,062,382	723,825	1,786,207
Sierra.....	314,441	955,400	29,970	985,370	196,805	138,525	335,330
Siskiyou.....	1,485,482	4,245,577	251,681	4,497,258	961,272	611,254	1,572,526
Solano.....	516,163	9,866,317	1,068,196	10,934,513	1,481,714	2,209,362	3,691,076
Sonoma.....	872,570	11,982,920	2,942,075	14,924,995	3,202,870	2,757,410	5,960,280
Stanislaus.....	867,512	7,178,320	480,345	7,658,665	688,150	722,435	1,410,585
Sutter.....	374,513	4,206,365	73,752	4,279,917	678,971	162,185	841,156
Tehama.....	1,148,988	5,836,530	515,875	6,352,405	876,125	809,635	1,635,760
Trinity.....	480,905	755,530	28,965	784,495	376,460	85,555	461,995
Tulare.....	1,381,066	9,042,379	725,886	9,768,265	1,095,088	1,031,466	2,126,474
Tuolumne.....	369,275	3,316,520	225,070	3,542,590	1,440,310	470,580	1,910,890
Ventura.....	530,263	4,820,434	455,580	5,276,014	801,631	648,348	1,449,979
Yolo.....	599,212	10,155,836	784,745	10,940,581	1,068,653	1,293,498	2,362,151
Yuba.....	354,117	2,219,160	433,995	2,653,155	503,445	837,495	1,340,940
Totals.....	39,891,204	\$347,626,761	\$332,643,890	\$680,270,651	\$70,377,437	\$206,471,889	\$276,849,326

SCHEDULE C.

Value of Property Mortgaged, Assessed Value of Mortgages, etc., 1901.

Counties.	Assessed Value of Property Mortgaged.	Value of Mortgages.	Per Cent of Mortgages to Total Value Real Estate and Im- provements.
Alameda	\$32,875,000	\$17,006,400	21.00
Alpine	14,450	14,450	8.42
Amador	403,463	403,463	10.37
Butte	2,999,650	2,127,503	20.60
Calaveras	900,000	373,715	8.40
Colusa	3,210,578	1,722,979	17.42
Contra Costa	3,532,310	3,166,725	22.64
Del Norte	694,188	145,650	8.00
El Dorado	424,905	345,990	10.75
Fresno	7,327,468	4,565,740	21.00
Glenn	2,630,130	1,726,644	20.00
Humboldt	3,495,800	2,159,537	14.05
Inyo	232,750	181,267	15.00
Kern	1,779,838	1,142,776	9.15
Kings	1,090,509	1,090,509	18.10
Lake	619,296	418,806	15.66
Lassen	649,320	252,510	12.78
Los Angeles	5,773,140	5,386,305	4.30
Madera	804,595	529,010	11.70
Marin	2,597,995	2,285,060	20.60
Mariposa	160,835	97,963	4.90
Mendocino	1,310,280	1,200,800	17.00
Merced	2,832,570	1,882,383	17.80
Modoc	245,000	181,637	10.60
Mono	75,600	54,800	6.05
Monterey	2,618,760	2,138,110	13.22
Napa	1,655,250	1,408,705	15.00
Nevada	605,000	420,320	8.26
Orange	287,520	287,520	2.60
Placer	1,705,190	1,002,420	16.40
Plumas	678,340	168,384	10.00
Riverside	1,217,455	700,090	7.00
Sacramento	5,550,000	1,947,710	5.70
San Benito	1,835,815	1,810,110	26.65
San Bernardino	1,258,400	1,001,485	7.20
San Diego	2,800,000	1,858,762	12.40
San Francisco	71,857,265	48,077,827	17.00
San Joaquin	7,000,000	4,760,348	16.90
San Luis Obispo	2,379,260	1,958,298	17.53
San Mateo	2,432,670	1,373,050	10.77
Santa Barbara	2,984,760	2,245,257	18.60
Santa Clara	8,849,800	8,535,185	12.75
Santa Cruz	2,011,725	1,587,110	14.60
Shasta	762,985	522,184	8.10
Sierra	95,115	74,865	5.90
Siskiyou	1,150,500	787,515	15.00
Solano	2,811,755	2,811,175	19.00
Sonoma	4,852,170	3,538,630	16.85
Stanislaus	3,086,735	2,368,230	25.70
Sutter	1,640,840	1,078,843	20.77
Tehama	3,742,630	1,352,760	17.15
Trinity	104,300	104,032	8.00
Tulare	2,648,925	1,931,166	16.15
Tuolumne	945,670	406,095	14.80
Ventura	1,290,830	1,182,212	16.25
Yolo	3,283,980	2,128,480	15.50
Yuba	1,024,610	747,960	19.90
Totals	\$226,543,325	\$148,777,460	-----

SCHEDULE D.

Showing Value of all Property as Returned by Auditors, and after Equalization by the Board, for 1901.

Counties.	Value of Real Estate and Improvements.	Value of Personal Property.	Money and Solvent Credits.	Total Value of Property as Returned by Auditors.	Value of Railroads as Assessed by State Board of Equalization.	Grand Total Value of All Property.
Alameda	\$76,614,700	\$10,728,513	\$499,196	\$87,842,409	\$1,928,596	\$89,771,005
Alpine	257,018	40,835	2,975	300,828	-----	300,828
Amador	3,949,967	580,714	24,663	4,555,344	86,145	4,641,489
Butte	10,886,254	1,908,677	145,278	12,940,209	938,837	13,879,046
Calaveras	4,456,160	828,840	36,745	5,321,745	112,634	5,434,379
Colusa	10,066,240	1,261,425	115,380	11,443,045	369,501	11,812,546
Contra Costa	11,923,090	3,423,233	419,520	15,765,843	1,314,088	17,079,931
Del Norte	1,816,485	216,623	15,336	2,048,444	-----	2,048,444
El Dorado	3,068,805	607,130	34,665	3,710,600	328,966	4,039,566
Fresno	24,223,064	3,797,852	159,904	28,180,820	2,589,909	30,770,729
Glenn	8,439,413	957,363	114,629	9,511,405	495,813	10,007,218
Humboldt	15,084,193	2,488,725	527,031	18,099,949	-----	18,099,949
Inyo	1,341,038	456,107	5,400	1,802,545	82,791	1,885,336
Kern	15,786,259	3,256,716	125,115	19,168,090	1,961,800	21,129,890
Kings	6,096,818	930,426	84,541	7,111,785	454,118	7,565,903
Lake	2,702,385	432,675	43,400	3,178,460	-----	3,178,460
Lassen	2,133,778	1,043,709	121,293	3,298,780	200,870	3,499,650
Los Angeles	85,668,405	13,948,007	904,544	100,520,956	2,807,948	103,328,904
Madera	4,371,035	971,150	18,100	5,360,285	929,657	6,289,942
Marin	10,212,230	1,095,745	28,660	11,336,635	772,269	12,108,904
Mariposa	1,813,937	279,700	2,400	2,096,587	-----	2,096,587
Mendocino	8,582,286	1,649,751	99,428	10,331,465	328,789	10,660,254
Merced	10,581,276	1,528,572	37,714	12,147,562	1,510,215	13,657,777
Modoc	1,775,427	1,180,861	47,517	3,003,805	-----	3,003,805
Monro	832,807	259,774	7,486	1,100,067	37,209	1,137,276
Monterey	14,722,540	1,566,687	117,735	16,406,962	1,609,494	18,016,456
Napa	9,335,940	1,741,905	176,725	11,254,570	510,731	11,765,301
Nevada	5,344,120	1,056,515	47,595	6,448,230	628,110	7,076,340
Orange	9,165,900	1,271,505	80,705	10,518,260	727,284	11,245,544
Placer	6,109,150	843,170	103,165	7,055,485	2,042,172	9,097,657
Plumas	1,684,900	358,179	3,600	2,046,679	46,325	2,093,004
Riverside	9,422,128	1,027,710	62,565	10,512,403	1,736,306	12,248,709
Sacramento	28,094,460	4,425,010	576,560	33,096,030	1,249,987	34,346,017
San Benito	5,050,845	739,985	37,335	5,828,165	190,575	6,018,740
S. Ber'dino	12,285,325	1,162,465	75,320	13,523,110	2,893,039	16,416,149
San Diego	15,719,437	2,370,922	151,261	18,241,620	1,720,339	19,961,959
S. Francisco	289,682,092	85,638,501	37,779,400	413,099,993	288,427	413,388,420
San Joaquin	25,781,772	3,542,528	525,610	29,849,910	2,173,462	32,023,372
S. L. Obispo	9,687,795	1,527,446	178,100	11,393,341	920,643	12,313,984
San Mateo	11,998,035	1,996,400	157,355	14,151,790	333,167	14,484,957
S. Barbara	11,509,327	1,625,290	89,050	13,223,647	746,221	13,969,868
Santa Clara	45,691,170	4,544,520	378,945	50,654,635	1,266,328	51,920,963
Santa Cruz	9,320,035	1,236,050	78,875	10,634,960	588,007	11,222,967
Shasta	6,043,891	1,779,393	99,581	7,922,865	1,439,439	9,362,304
Sierra	1,320,700	158,788	5,883	1,485,371	44,233	1,529,604
Siskiyou	6,069,250	1,263,284	200,036	7,533,104	1,458,724	8,991,828
Solano	14,625,589	1,982,964	119,060	16,727,613	796,504	17,524,117
Sonoma	20,885,275	2,896,014	354,305	24,135,594	1,867,585	26,003,179
Stanislaus	9,069,250	1,603,805	110,270	10,783,325	1,254,085	12,037,410
Sutter	5,120,773	744,834	36,429	5,902,336	462,123	6,364,459
Tehama	8,038,165	1,841,100	132,065	10,011,330	899,349	10,910,679
Trinity	1,246,490	283,719	37,789	1,567,998	-----	1,567,998
Tulare	11,894,739	1,904,965	129,657	13,929,361	1,864,946	15,794,307
Tuolumne	5,453,480	779,490	28,290	6,261,260	163,410	6,424,670
Ventura	6,725,993	1,210,404	134,984	8,071,381	586,862	8,658,243
Yolo	13,302,732	1,570,218	210,532	15,083,482	950,864	16,034,346
Yuba	3,994,095	939,455	118,295	5,051,845	412,589	5,464,434
Totals	\$957,119,977	\$189,506,344	\$45,957,997	\$1,192,584,318	\$49,121,485	\$1,241,705,803

SCHEDULE E.

Showing Assessment and Apportionment of Railways for 1901.

Name of each Railway Assessed, and Name of the County to which Assessment is Appor- tioned.	Number of Miles of Railway Operated in the State.	Number of Miles of each Rail- way in each County.	Value per Mile of each Railway.	Total Assess- ment of each Railway.	Amount of Assessment of each Rail- way Appor- tioned to each County.
Central Pacific Railway	746.76		\$17,408 53	\$13,000,000	
Alameda		83.14			\$1,447,346
Butte		45.00			783,384
Fresno		32.00			557,073
Madera		29.06			505,892
Merced		36.75			639,764
Nevada		30.25			526,608
Placer		112.75			1,962,813
Sacramento		41.00			713,750
San Francisco		2.46			42,825
San Joaquin		56.75			987,935
Santa Clara		8.50			147,973
Shasta		82.08			1,428,893
Sierra		2.15			37,428
Siskiyou		83.18			1,448,042
Stanislaus		22.63			393,955
Sutter		10.00			174,085
Tehama		40.54			705,742
Tulare		12.65			220,218
Yuba		15.87			276,274
South Pacific Coast Railway	96.16		10,500 00	1,009,680	
Alameda		31.46			330,330
Santa Clara		37.00			388,500
Santa Cruz		27.70			290,850
Southern Pacific Railroad	2,098.79		10,768 11	22,600,000	
Alameda		11.90			128,140
Amador		8.00			86,145
Butte		13.90			149,677
Calaveras		10.46			112,634
Colusa		33.91			365,147
Contra Costa		80.05			861,987
El Dorado		30.55			328,966
Fresno		148.93			1,603,695
Glenn		45.70			492,103
Kern		131.23			1,413,099
Kings		23.32			251,112
Los Angeles		201.48			2,169,559
Madera		21.00			226,130
Merced		52.50			565,326
Monterey		130.03			1,400,177
Napa		47.43			510,731
Orange		25.15			270,818
Riverside		92.60			997,127
Sacramento		49.25			530,329
San Benito		17.65			190,057
San Bernardino		40.53			436,431
San Diego		87.79			945,332
San Francisco		7.36			79,253
San Joaquin		71.59			770,889
San Luis Obispo		72.60			781,765
San Mateo		25.10			270,280
Santa Barbara		57.68			621,105
Santa Clara		67.10			722,540
Santa Cruz		27.15			292,354
Solano		73.45			790,918
Sonoma		30.52			328,643
Stanislaus		56.86			612,275
Sutter		26.63			286,755
Tehama		17.29			186,180
Tulare		107.33			1,155,741
Ventura		54.50			586,862
Yolo		87.80			945,440
Yuba		12.47			134,278

SCHEDULE E—Continued.

Showing Assessment and Apportionment of Railways for 1901.

Name of each Railway Assessed, and Name of the County to which Assessment is Appor- tioned.	Number of Miles of Railway Operated in the State.	Number of Miles of each Rail- way in each County.	Value per Mile of each Railway.	Total Assess- ment of each Railway.	Amount of Assessment of each Rail- way Appor- tioned to each County.
Southern California Motor Road	12.00	-----	\$5,000 00	\$60,000	-----
Riverside	-----	6.00	-----	-----	\$30,000
San Bernardino	-----	6.00	-----	-----	30,000
Carson and Colorado Railway.	107.62	-----	1,115 03	120,000	-----
Inyo	-----	74.25	-----	-----	82,791
Mono	-----	33.37	-----	-----	37,209
San Francisco and North Pacific Ry. (California- Northwestern Ry. Co., Lessee)	165.32	-----	12,097 74	2,000,000	-----
Marin	-----	29.50	-----	-----	356,884
Mendocino	-----	25.80	-----	-----	312,122
Sonoma	-----	110.02	-----	-----	1,330,994
San Francisco and San Joa- quin Valley Railway	374.71	-----	7,205 57	2,700,000	-----
Contra Costa	-----	55.41	-----	-----	399,261
Fresno	-----	56.99	-----	-----	410,646
Kern	-----	41.46	-----	-----	298,743
Kings	-----	27.68	-----	-----	199,450
Madera	-----	26.44	-----	-----	190,515
Merced	-----	40.36	-----	-----	290,817
San Joaquin	-----	39.50	-----	-----	284,620
Stanislaus	-----	21.14	-----	-----	152,326
Tulare	-----	65.73	-----	-----	473,622
Santa Fé Pacific Railroad	242.542	-----	6,184 50	1,500,000	-----
Kern	-----	35.914	-----	-----	222,110
San Bernardino	-----	206.628	-----	-----	1,277,890
Southern California Railway.	487.265	-----	7,182 95	3,500,000	-----
Los Angeles	-----	85.754	-----	-----	615,967
Orange	-----	62.691	-----	-----	450,306
Riverside	-----	97.076	-----	-----	697,292
San Bernardino	-----	136.592	-----	-----	981,133
San Diego	-----	105.152	-----	-----	755,302
North Pacific Coast Railroad.	84.50	-----	7,100 58	600,000	-----
Marin	-----	58.50	-----	-----	415,385
Sonoma	-----	26.00	-----	-----	184,615
Pacific Coast Railway	76.10	-----	3,285 15	250,000	-----
San Luis Obispo	-----	39.50	-----	-----	129,763
Santa Barbara	-----	36.60	-----	-----	120,237
Pajaro Valley Consolidated Railroad	32.90	-----	6,079 02	200,000	-----
Monterey	-----	32.11	-----	-----	195,197
Santa Cruz	-----	.79	-----	-----	4,803
Nevada County Narrow Gauge Railroad	22.50	-----	5,000 00	112,500	-----
Nevada	-----	18.78	-----	-----	93,900
Placer	-----	3.72	-----	-----	18,600
Nevada-California-Oregon Ry.	99.86	-----	2,002 80	200,000	-----
Lassen	-----	96.60	-----	-----	193,470
Sierra	-----	3.26	-----	-----	6,530
Alameda and San Joaquin Railroad	35.88	-----	3,500 00	125,580	-----
Alameda	-----	2.79	-----	-----	9,765
San Joaquin	-----	33.09	-----	-----	115,815
Sierra Railway of California.	56.30	-----	4,440 50	250,000	-----
Stanislaus	-----	19.50	-----	-----	86,590
Tuolumne	-----	36.80	-----	-----	163,410
Randsburg Railway	29.66	-----	4,214 43	125,000	-----
Kern	-----	.66	-----	-----	2,782
San Bernardino	-----	29.00	-----	-----	122,218
Gualala River Railroad	12.00	-----	3,333 33	40,000	-----
Mendocino	-----	5.00	-----	-----	16,667
Sonoma	-----	7.00	-----	-----	23,333

SCHEDULE E—Continued.

Showing Assessment and Apportionment of Railways for 1901.

Name of each Railway Assessed, and Name of the County to which Assessment is Appor- tioned.	Number of Miles of Railway Operated in the State.	Number of Miles of each Rail- way in each County.	Value per Mile of each Railway.	Total Assess- ment of each Railway.	Amount of Assessment of each Rail- way Appor- tioned to each County.
Sierra Valleys Railway	30.50		\$1,761 47	\$53,725	
Lassen		4.20			\$7,400
Plumas		26.30			46,325
California and Nevada R. R.	23.00		\$2,173 91	\$50,000	
Alameda		5.50			\$11,957
Contra Costa		17.50			38,043
Lake Tahoe Railway and Transportation	14.80		3,378 37	50,000	
Nevada		1.10			3,717
Placer		13.70			46,283
San Francisco and San Mateo Electric Railway	29.362		7,662 90	225,000	
San Francisco		21.574			165,320
San Mateo		7.788			59,680
Pullman's Palace Car Co.	2,726.19		128 34	350,000	
Alameda		8.25			1 058
Butte		45.00			5,776
Colusa		32.91			4,354
Contra Costa		115.25			14,797
Fresno		144.08			18,495
Glenn		28.90			3,710
Kern		195.24			25,066
Kings		27.70			3,556
Los Angeles		174.67			22,422
Madera		55.46			7,120
Merced		111.45			14,308
Monterey		110.00			14,120
Nevada		30.25			3,885
Orange		48.00			6,160
Placer		112.75			14,476
Riverside		92.60			11,887
Sacramento		46.00			5,908
San Benito		4.00			518
San Bernardino		353.38			45,367
San Diego		153.47			19,705
San Francisco		8.00			1,029
San Joaquin		110.64			14,203
San Luis Obispo		71.00			9,115
San Mateo		25.00			3,207
Santa Barbara		38.00			4,879
Santa Clara		57.00			7,315
Shasta		82.08			10,546
Sierra		2.15			275
Siskiyou		83.18			10,682
Solano		43.50			5,586
Stanislaus		69.63			8,939
Sutter		10.00			1,283
Tehama		57.83			7,427
Tulare		119.70			15,365
Yolo		42.25			5,424
Yuba		15.87			2,037

SCHEDULE F.

Showing Apportionment of Railways to Counties for 1901.

Name of County and Road.	Amount Apportioned.	Total Assessment.
Alameda—		
Central Pacific.....	\$1,447,346	
South Pacific Coast.....	330,330	
Southern Pacific.....	128,140	
Alameda and San Joaquin.....	9,765	
California and Nevada.....	11,957	
Pullman's Palace Car Co.....	1,058	
		\$1,928,596
Amador—		
Southern Pacific.....	86,145	
		86,145
Butte—		
Central Pacific.....	783,384	
Southern Pacific.....	149,677	
Pullman's Palace Car Co.....	5,776	
		938,837
Calaveras—		
Southern Pacific.....	112,634	
		112,634
Colusa—		
Southern Pacific.....	365,147	
Pullman's Palace Car Co.....	4,354	
		369,501
Contra Costa—		
Southern Pacific.....	861,987	
San Francisco and San Joaquin Valley.....	399,261	
California and Nevada.....	38,043	
Pullman's Palace Car Co.....	14,797	
		1,314,088
El Dorado—		
Southern Pacific.....	328,966	
		328,966
Fresno—		
Southern Pacific.....	1,603,695	
Central Pacific.....	557,073	
San Francisco and San Joaquin Valley.....	410,646	
Pullman's Palace Car Co.....	18,495	
		2,589,909
Glenn—		
Southern Pacific.....	492,103	
Pullman's Palace Car Co.....	3,710	
		495,813
Inyo—		
Carson and Colorado.....	82,791	
		82,791
Kern—		
Southern Pacific.....	1,413,099	
Santa Fé Pacific.....	222,110	
San Francisco and San Joaquin Valley.....	298,743	
Randsburg.....	2,782	
Pullman's Palace Car Co.....	25,066	
		1,961,800
Kings—		
Southern Pacific.....	251,112	
San Francisco and San Joaquin Valley.....	199,450	
Pullman's Palace Car Co.....	3,556	
		454,118
Lassen—		
Nevada-California-Oregon.....	193,470	
Sierra Valleys.....	7,400	
		200,870
Los Angeles—		
Southern Pacific.....	2,169,559	
Southern California.....	615,927	
Pullman's Palace Car Co.....	22,422	
		2,807,948

SCHEDULE F—Continued.

Showing Apportionment of Railways to Counties for 1901.

Name of County and Road.	Amount Apportioned.	Total Assessment.
Madera—		
Central Pacific.....	\$505,892	
Southern Pacific.....	226,130	
San Francisco and San Joaquin Valley.....	190,515	
Pullman's Palace Car Co.....	7,120	
		\$929,657
Marin—		
San Francisco and North Pacific.....	356,884	
North Pacific Coast.....	415,385	
		772,269
Mendocino—		
San Francisco and North Pacific.....	312,122	
Gualala River.....	16,667	
		328,789
Merced—		
Central Pacific.....	639,764	
Southern Pacific.....	565,326	
San Francisco and San Joaquin Valley.....	290,817	
Pullman's Palace Car Co.....	14,308	
		1,510,215
Mono—		
Carson and Colorado.....	37,209	
		37,209
Monterey—		
Southern Pacific.....	1,400,177	
Pajaro Valley Consolidated.....	195,197	
Pullman's Palace Car Co.....	14,120	
		1,609,494
Napa—		
Southern Pacific.....	510,731	
		510,731
Nevada—		
Central Pacific.....	526,608	
Nevada County Narrow Gauge.....	93,900	
Lake Tahoe.....	3,717	
Pullman's Palace Car Co.....	3,885	
		628,110
Orange—		
Southern Pacific.....	270,818	
Southern California.....	450,306	
Pullman's Palace Car Co.....	6,162	
		727,284
Placer—		
Central Pacific.....	1,962,813	
Nevada County Narrow Gauge.....	18,600	
Lake Tahoe.....	46,283	
Pullman's Palace Car Co.....	14,476	
		2,042,172
Plumas—		
Sierra Valleys.....	46,325	
		46,325
Riverside—		
Southern Pacific.....	997,127	
Southern California.....	697,292	
Southern California Motor.....	30,000	
Pullman's Palace Car Co.....	11,887	
		1,736,306
Sacramento—		
Central Pacific.....	713,750	
Southern Pacific.....	530,329	
Pullman's Palace Car Co.....	5,908	
		1,249,987
San Benito—		
Southern Pacific.....	190,057	
Pullman's Palace Car Co.....	518	
		190,575

SCHEDULE F—Continued.

Showing Apportionment of Railways to Counties for 1901.

Name of County and Road.	Amount Apportioned.	Total Assessment.
San Bernardino—		
Southern Pacific	\$436,431	
Southern California Motor	30,000	
Southern California	981,133	
Santa Fé Pacific	1,277,890	
Randsburg	122,218	
Pullman's Palace Car Co.	45,367	
		\$2,893,039
San Diego—		
Southern Pacific	945,332	
Southern California	755,302	
Pullman's Palace Car Co.	19,705	
		1,720,339
San Francisco—		
Central Pacific	42,825	
Southern Pacific	79,253	
San Francisco and San Mateo	165,320	
Pullman's Palace Car Co.	1,029	
		288,427
San Joaquin—		
Central Pacific	987,935	
Southern Pacific	770,889	
San Francisco and San Joaquin Valley	284,620	
Alameda and San Joaquin	115,815	
Pullman's Palace Car Co.	14,203	
		2,173,462
San Luis Obispo—		
Southern Pacific	781,765	
Pacific Coast	129,763	
Pullman's Palace Car Co.	9,115	
		920,643
San Mateo—		
Southern Pacific	270,280	
San Francisco and San Mateo	59,680	
Pullman's Palace Car Co.	3,207	
		333,167
Santa Barbara—		
Southern Pacific	621,105	
Pacific Coast	120,237	
Pullman's Palace Car Co.	4,879	
		746,221
Santa Clara—		
Central Pacific	147,973	
Southern Pacific	722,540	
South Pacific Coast	388,500	
Pullman's Palace Car Co.	7,315	
		1,266,328
Santa Cruz—		
South Pacific Coast	290,850	
Southern Pacific	292,354	
Pajaro Valley Consolidated	4,803	
		588,007
Shasta—		
Central Pacific	1,428,893	
Pullman's Palace Car Co.	10,546	
		1,439,439
Sierra—		
Central Pacific	37,428	
Nevada-California-Oregon	6,530	
Pullman's Palace Car Co.	275	
		44,233
Siskiyou—		
Central Pacific	1,448,042	
Pullman's Palace Car Co.	10,682	
		1,458,724

SCHEDULE F—Continued.

Showing Apportionment of Railways to Counties for 1901.

Name of County and Road.	Amount Apportioned.	Total Assessment.
Solano—		
Southern Pacific.....	\$790,918	
Pullman's Palace Car Co.....	5,586	\$796,504
Sonoma—		
Southern Pacific.....	328,643	
San Francisco and North Pacific.....	1,330,994	
North Pacific Coast.....	184,615	
Gualala River.....	23,333	1,867,585
Stanislaus—		
Central Pacific.....	393,955	
Southern Pacific.....	612,275	
San Francisco and San Joaquin Valley.....	152,326	
Sierra Railway of California.....	86,590	
Pullman's Palace Car Co.....	8,939	1,254,085
Sutter—		
Central Pacific.....	174,085	
Southern Pacific.....	286,755	
Pullman's Palace Car Co.....	1,283	462,123
Tehama—		
Central Pacific.....	705,742	
Southern Pacific.....	186,180	
Pullman's Palace Car Co.....	7,427	899,349
Tulare—		
Central Pacific.....	220,218	
Southern Pacific.....	1,155,741	
San Francisco and San Joaquin Valley.....	473,622	
Pullman's Palace Car Co.....	15,365	1,864,946
Tuolumne—		
Sierra Railway of California.....	163,410	163,410
Ventura—		
Southern Pacific.....	586,862	586,862
Yolo—		
Southern Pacific.....	945,440	
Pullman's Palace Car Co.....	5,424	950,864
Yuba—		
Central Pacific.....	276,274	
Southern Pacific.....	134,278	
Pullman's Palace Car Co.....	2,037	412,589
Total		\$49,121,485

VALUATIONS AND RATES OF TAXATION—1902.

SCHEDULE A.

Showing Amount of Property upon which the State Rate of Taxation was Based, and the Rate for 1902.

Value returned by Auditors.....	\$1,224,863,459
Railroad assessment by Board	64,812,603
Total	\$1,289,676,062
Deduction University and other State mortgages, assessed but not taxed ..	1,600,000
Amount upon which tax is based	\$1,288,076,062

Amount to be Raised for Fifty-fourth Fiscal Year.

		Rate.
General Fund.....	\$1,750,000	14.3
School Fund	2,528,071	20.7
Interest and Sinking Fund	141,435	1.2
University Fund.....		2.0
Total	\$4,419,506	38.2

SCHEDULE B.

Number of Acres of Land Assessed, as per Auditors' Statements, and the Valuation of Real Estate and Improvements, for 1902.

Counties.	Acres.	Value of Real Estate other than City and Town Lots.	Value of City and Town Lots.	Value of All Real Estate.	Value of Improvements on Real Estate other than City and Town Lots.	Value of Improvements on City and Town Lots.	Value of All Improvements.
Alameda	451,418	\$15,019,100	\$34,861,475	\$49,880,575	\$4,021,025	\$24,438,800	\$28,459,825
Alpine	53,174	148,331	690	149,021	120,133	2,400	122,533
Amador	262,430	2,250,572	269,380	2,519,952	645,770	722,800	1,368,570
Butte	875,559	7,849,440	782,600	8,632,040	1,038,155	1,245,960	2,284,115
Calaveras	450,856	2,904,870	174,365	3,079,235	1,030,260	604,285	1,634,545
Colusa	603,301	8,597,172	276,516	8,873,688	502,891	557,814	1,060,705
Contra Costa	459,941	8,261,110	685,950	8,947,060	2,016,665	930,170	2,946,835
Del Norte	170,569	2,103,710	61,100	2,164,810	151,525	133,005	284,530
El Dorado	583,606	1,913,120	137,870	2,050,990	708,620	402,565	1,111,185
Fresno	1,532,967	15,397,879	3,642,600	19,040,479	2,803,158	2,899,839	5,702,997
Glenn	617,145	7,583,862	158,417	7,742,279	555,774	202,475	758,249
Humboldt	1,421,201	10,725,052	2,384,925	13,109,977	1,024,260	1,757,125	2,781,385
Inyo	201,108	811,471	77,263	888,734	353,001	157,822	510,823
Kern	2,795,530	11,795,759	1,322,754	13,118,513	1,224,715	1,538,728	2,763,443
Kings	655,453	4,465,663	424,166	4,889,829	539,562	594,617	1,134,179
Lake	342,416	1,801,107	172,997	1,974,104	485,414	222,163	707,577
Lassen	461,817	1,659,858	47,412	1,707,270	398,513	144,105	542,618
Los Angeles	1,112,635	20,167,420	45,680,445	65,847,865	4,311,985	25,917,025	30,229,010
Madera	731,200	3,477,515	233,245	3,710,760	439,710	214,170	653,880
Marin	326,558	5,186,075	2,301,085	7,487,160	988,925	1,858,165	2,847,090
Mariposa	335,304	1,384,358	41,245	1,425,603	316,983	106,320	423,303
Mendocino	1,448,137	6,355,723	538,212	6,893,935	1,077,240	785,586	1,862,826
Merced	1,149,933	9,149,594	469,410	9,619,004	628,653	571,481	1,200,131
Modoc	358,764	1,338,379	41,936	1,380,315	392,045	170,095	562,140
Mono	154,400	459,324	19,700	479,024	242,486	90,865	333,351
Monterey	1,347,704	10,558,275	1,422,015	11,978,290	1,576,290	1,111,150	2,687,440
Napa	403,970	4,796,280	965,190	5,761,430	2,057,985	1,546,195	3,604,180
Nevada	472,150	2,312,845	401,055	2,713,900	1,373,070	1,263,895	2,636,965

Orange.....	444,488	5,454,765	1,334,840	6,789,605	1,204,575	1,246,615	2,451,190
Placer.....	621,340	3,779,775	372,595	4,152,370	1,166,865	849,250	2,016,115
Plumas.....	328,802	1,371,401	32,578	1,403,979	314,920	139,246	454,156
Riverside.....	911,773	5,106,547	1,106,714	6,213,261	2,016,705	1,418,420	3,435,125
Sacramento.....	607,525	10,622,330	8,398,170	19,020,500	1,633,740	7,627,830	9,261,570
San Benito.....	545,390	3,840,680	283,470	4,124,150	572,375	374,690	947,065
San Bernardino.....	461,372	6,972,575	1,712,080	8,684,655	2,399,240	1,782,310	4,181,550
San Diego.....	1,199,658	4,270,261	6,848,180	11,118,441	975,277	3,108,346	4,083,623
San Francisco.....	27,000	2,647,510	189,157,000	191,804,510	380,400	96,251,390	96,631,790
San Joaquin.....	875,444	13,561,420	6,039,084	19,600,504	1,671,887	4,870,747	6,942,634
San Luis Obispo.....	1,500,572	7,298,633	834,999	8,133,632	728,525	907,316	1,635,841
San Mateo.....	281,161	6,954,470	1,678,425	8,632,895	2,525,480	1,058,745	3,584,225
Santa Barbara.....	1,119,042	6,413,682	2,679,965	9,093,647	994,055	1,709,560	2,703,615
Santa Clara.....	716,242	20,969,480	10,924,980	31,894,460	7,242,610	6,626,240	13,868,850
Santa Cruz.....	265,044	4,237,155	2,276,585	6,513,740	1,387,165	1,543,130	2,930,295
Shasta.....	1,132,943	4,161,386	580,965	4,742,351	1,132,558	852,416	1,984,974
Sierra.....	321,354	1,038,470	31,750	1,070,220	183,785	161,065	344,850
Siskiyou.....	1,505,637	4,542,276	253,027	4,795,303	935,345	626,420	1,561,765
Solano.....	512,770	9,804,429	1,115,553	10,919,982	1,571,073	2,347,709	3,918,782
Sonoma.....	874,510	12,048,220	2,939,350	14,987,570	3,379,790	2,747,015	6,126,805
Stanislaus.....	898,444	7,119,940	472,645	7,592,585	709,690	718,565	1,428,255
Sutter.....	374,513	4,193,140	78,705	4,271,845	671,060	165,220	836,280
Tehama.....	1,527,265	5,848,895	540,340	6,389,235	856,235	860,315	1,716,550
Trinity.....	463,979	717,745	30,126	747,871	345,185	98,379	438,564
Tulare.....	1,374,244	8,793,405	706,615	9,500,020	1,383,021	1,050,470	2,433,490
Tuolumne.....	337,983	3,353,860	233,070	3,586,930	1,612,870	484,245	2,097,115
Ventura.....	670,355	4,846,493	604,988	5,451,481	1,005,500	532,945	1,538,445
Yolo.....	596,459	10,080,970	778,701	10,859,671	1,043,049	1,269,311	2,312,360
Yuba.....	357,265	2,274,715	412,925	2,687,640	430,875	861,290	1,292,165
Totals.....	40,681,810	\$350,796,492	\$340,052,403	\$690,848,895	\$72,498,668	\$211,473,820	\$283,972,488

SCHEDULE C.

Value of Property Mortgaged, Assessed Value of Mortgages, etc., for 1902.

Counties.	Assessed Value of Property Mortgaged.	Value of Mortgages.	Per Cent of Mortgages to Total Value Real Estate and Im- provements.
Alameda	\$32,875,000	\$16,391,875	20.94
Alpine	14,450	14,450	8.42
Amador	403,463	403,463	10.37
Butte	2,909,650	2,267,783	20.77
Calaveras	900,000	408,235	8.66
Colusa	3,210,578	1,729,675	17.41
Contra Costa	3,532,310	2,693,590	22.64
Del Norte	694,188	397,957	16.23
El Dorado	424,905	339,925	10.75
Fresno	7,327,468	5,245,591	21.20
Glenn	2,630,130	1,697,473	20.00
Humboldt	3,495,800	2,227,990	14.02
Inyo	232,750	146,409	14.62
Kern	1,779,838	1,450,457	9.13
Kings	1,090,509	1,090,509	18.10
Lake	619,296	420,095	15.66
Lassen	649,320	287,601	12.78
Los Angeles	5,773,140	4,069,995	4.23
Madera	804,595	502,085	11.50
Marin	2,597,995	2,127,885	20.54
Mariposa	160,835	90,283	4.88
Mendocino	2,310,300	1,476,088	16.83
Merced	2,832,570	1,931,075	17.84
Modoc	245,000	206,420	10.62
Mono	75,600	48,930	6.02
Monterey	2,618,760	1,939,030	13.22
Napa	1,655,250	1,445,090	15.42
Nevada	605,000	441,875	8.25
Orange	287,520	230,515	2.50
Placer	1,705,190	1,012,460	16.41
Plumas	678,340	192,860	10.32
Riverside	1,217,455	672,109	6.96
Sacramento	5,550,000	1,569,410	5.54
San Benito	1,835,815	1,351,345	26.64
San Bernardino	1,258,400	798,575	6.20
San Diego	2,800,000	1,880,980	12.37
San Francisco	71,857,265	48,924,155	17.00
San Joaquin	9,700,000	4,401,255	16.83
San Luis Obispo	2,379,260	1,713,050	17.53
San Mateo	2,430,670	1,316,760	10.77
Santa Barbara	2,984,760	2,195,725	18.61
Santa Clara	5,849,800	5,849,800	12.78
Santa Cruz	2,011,725	1,377,885	14.59
Shasta	762,985	533,550	8.00
Sierra	95,115	83,420	5.90
Siskiyou	1,150,500	608,705	14.00
Solano	2,811,755	2,811,755	19.00
Sonoma	4,852,170	3,561,345	16.86
Stanislaus	3,086,735	2,321,870	25.73
Sutter	1,640,840	1,061,310	20.77
Tehama	3,742,630	1,388,745	17.13
Trinity	101,580	79,385	6.70
Tulare	2,648,925	2,003,625	16.79
Tuolumne	945,670	839,725	14.77
Ventura	1,290,830	1,135,325	16.24
Yolo	3,283,980	1,983,975	15.00
Yuba	1,024,610	752,955	19.92
Totals	\$222,543,325	\$143,944,408	-----

SCHEDULE D.

Showing Value of all Property as Returned by Auditors, and after Equalization by the Board, for 1902.

Counties.	Value of Real Estate and Improvements.	Personal Property, other than Money and Solvent Credits.	Money and Solvent Credits.	Value Preceding Columns.	Railroad Assessment.	Total Value of All Property.
Alameda	\$78,340,400	\$9,769,276	\$790,321	\$88,899,997	\$2,203,785	\$91,003,782
Alpine	171,564	43,619	2,335	317,508		317,508
Amador	3,888,522	591,008	19,300	4,498,830	120,000	4,618,830
Butte	10,916,155	1,993,318	145,644	13,055,117	1,119,474	14,174,591
Calaveras	4,713,780	816,575	27,545	5,557,900	156,900	5,714,800
Colusa	9,934,393	1,253,621	148,017	11,336,031	513,977	11,850,008
Contra Costa	11,893,895	3,482,076	369,335	15,745,306	1,730,096	17,475,402
Del Norte	2,449,340	264,758	32,469	2,746,567		2,746,567
El Dorado	3,162,175	605,740	17,420	3,785,335	458,250	4,243,585
Fresno	24,743,476	3,741,710	178,147	28,663,333	3,386,053	32,049,386
Glenn	8,500,528	1,031,313	97,770	9,629,611	690,040	10,319,651
Humboldt	15,891,362	2,648,942	504,027	19,044,331		19,044,331
Inyo	1,399,557	506,579	11,302	1,917,438	82,791	2,000,229
Kern	15,881,956	3,904,996	79,342	19,866,294	2,679,188	22,545,482
Kings	6,024,088	1,173,618	83,017	7,280,643	590,551	7,871,194
Lake	2,681,681	438,239	33,844	3,153,764		3,153,764
Lassen	2,249,888	1,155,238	137,524	3,542,650	200,870	3,743,520
Los Angeles	96,076,875	16,979,898	1,103,059	114,159,832	4,106,792	118,266,624
Madera	4,364,640	957,455	14,550	5,336,645	1,133,240	6,469,885
Marin	10,334,250	1,156,220	30,640	11,521,110	771,837	12,292,947
Mariposa	1,848,906	338,356	50	2,187,312		2,187,312
Mendocino	8,756,761	1,744,119	109,976	10,610,856	329,547	10,940,403
Merced	10,819,138	1,687,342	32,453	12,538,933	1,887,837	14,426,770
Modoc	1,942,455	1,217,978	55,990	3,216,423		3,216,423
Mono	812,375	212,016	10,041	1,034,432	37,209	1,071,641
Monterey	14,665,730	1,852,020	74,470	16,592,220	2,162,974	18,755,194
Napa	9,365,610	1,762,555	261,370	11,389,535	711,450	12,100,985
Nevada	5,350,865	1,046,800	55,350	6,453,015	718,616	7,171,631
Orange	9,240,795	1,377,990	107,625	10,726,410	1,156,596	11,883,006
Placer	6,168,485	849,730	97,165	7,115,380	2,347,500	9,462,880
Plumas	1,858,145	311,990	3,550	2,173,685	82,594	2,256,279
Riverside	9,648,386	1,133,760	87,575	10,869,721	2,628,664	13,498,385
Sacramento	28,282,070	4,642,140	524,740	33,448,950	1,569,534	35,018,484
San Benito	5,071,215	914,500	24,860	6,010,575	265,103	6,275,678
San Ber'dino	12,866,205	1,323,620	139,925	14,329,750	4,358,173	18,687,923
San Diego	15,202,064	2,391,823	112,211	17,706,098	2,635,516	20,341,614
S. Francisco	288,436,300	89,859,788	41,682,743	419,978,831	376,710	420,354,741
San Joaquin	26,143,138	3,769,322	688,490	30,600,950	2,706,817	33,307,767
S. L. Obispo	9,769,473	1,910,701	167,759	11,847,933	1,230,168	13,078,101
San Mateo	12,217,120	1,952,795	309,300	14,479,215	458,307	14,937,522
S. Barbara	11,797,262	1,585,950	97,730	13,480,942	1,779,484	15,260,426
Santa Clara	45,763,310	4,243,365	408,190	50,414,865	1,574,692	51,989,557
Santa Cruz	9,444,035	1,308,675	84,030	10,836,740	703,241	11,539,981
Shasta	6,727,325	1,988,256	101,317	8,816,898	1,661,616	10,478,514
Sierra	1,415,070	188,080	3,670	1,606,820	130,042	1,736,862
Siskiyou	4,357,068	1,291,345	217,440	7,865,853	1,683,885	9,549,738
Solano	14,838,764	1,923,852	115,841	16,878,457	1,108,583	17,987,040
Sonoma	21,114,375	2,847,335	299,490	24,261,200	1,996,416	26,257,616
Stanislaus	9,020,840	1,669,130	117,595	10,807,565	1,596,273	12,403,838
Sutter	5,108,125	722,015	36,880	5,867,020	601,889	6,468,909
Tehama	8,105,785	1,929,990	123,440	10,159,215	1,082,752	11,241,967
Trinity	1,186,435	290,764	24,921	1,502,120		1,502,120
Tulare	11,933,511	1,970,482	127,486	14,031,479	2,444,553	16,476,032
Tuolumne	5,684,045	799,410	21,200	6,504,655	184,000	6,688,655
Ventura	6,989,926	1,490,655	84,767	8,565,348	826,061	9,391,409
Yolo	13,172,031	1,416,970	215,240	14,804,241	1,323,637	16,127,878
Yuba	3,979,805	993,675	118,095	5,091,575	508,320	5,599,895
Totals	\$974,821,383	\$199,473,493	\$50,568,583	\$1,224,863,459	\$64,812,603	\$1,289,676,062

SCHEDULE E.

Showing Assessment and Apportionment of Railways for 1902.

Name of each Railway Assessed, and name of the County to which Assessment is Apportioned.	Number of Miles of Railway Operated in the State.	Number of Miles of each Railway in each County.	Value per Mile of each Railway.	Total Assessment of each Railway.	Amount of Assessment of each Railway Apportioned to each County.
Central Pacific Railway.....	746.76		\$20,086 77	\$15,000,000	
Alameda		83.14			\$1,670,014
Butte		45.00			903,905
Fresno		32.00			642,777
Madera		29.06			583,721
Merced		36.75			738,189
Nevada		30 25			607,625
Placer		112.75			2,264,783
Sacramento		41.00			823,558
San Francisco		2.46			49,414
San Joaquin		56.75			1,139,924
Santa Clara		8.50			170,738
Shasta		82.08			1,648,722
Sierra		2.15			43,187
Siskiyou		83.18			1,670,818
Stanislaus		22.63			454,564
Sutter		10.00			200,868
Tehama		40.54			814,318
Tulare		12.65			254,098
Yuba		15.87			318,777
South Pacific Coast Railway.....	96.16		10,500 00	1,009,680	
Alameda		31.46			330,330
Santa Clara		37.00			388,500
Santa Cruz		27.70			290,850
Southern Pacific Railroad	2,150.58		15,000 00	32,258,700	
Alameda		11.90			178,500
Amador		8.00			120,000
Butte		13.90			208,500
Calaveras		10.46			156,900
Colusa		33.91			508,650
Contra Costa		80.05			1,200,750
El Dorado		30.55			458,250
Fresno		148.93			2,233,950
Glenn		45.70			685,500
Kern		131.23			1,968,450
Kings		23.32			349,800
Los Angeles		201.48			3,022,200
Madera		21.00			315,000
Merced		52.50			787,500
Monterey		130.03			1,950,450
Napa		47.43			711,450
Orange		25.15			377,250
Riverside		92.60			1,389,000
Sacramento		49.25			738,750
San Benito		17.65			264,750
San Bernardino		40.53			607,950
San Diego		87.79			1,316,850
San Francisco		7.36			110,400
San Joaquin		71.59			1,073,850
San Luis Obispo		72.60			1,089,000
San Mateo		25.10			376,500
Santa Barbara		109.47			1,642,050
Santa Clara		67.10			1,006,500
Santa Cruz		27.15			407,250
Solano		73.45			1,101,750
Sonoma		30.52			457,800
Stanislaus		56.86			852,900
Sutter		26.63			399,450
Tehama		17.29			259,350
Tulare		107.33			1,609,950
Ventura		54.50			817,500
Yolo		87.80			1,317,000
Yuba		12.47			187,050

SCHEDULE E—Continued.

Showing Assessment and Apportionment of Railways for 1902.

Name of each Railway Assessed, and Name of the County to which Assessment is Appor- tioned.	Number of Miles of Railway Operated in the State.	Number of Miles of each Rail- way in each County.	Value per Mile of each Railway.	Total Assess- ment of each Railway.	Amount of Assessment of each Rail- way Appor- tioned to each County.
Southern California Motor Road	12.00		\$5,000 00	\$60,000	
Riverside		6.00			\$30,000
San Bernardino		6.00			30,000
Carson and Colorado Railway	107.62		1,115 03	120,000	
Inyo		74.25			82,791
Mono		33.37			37,209
San Francisco and North Pacific Railway (Califor- nia Northwestern Ry. Co. Lessee)	165.52		\$12,083 13	\$2,000,000	
Marin		29.50			\$356,542
Mendocino		26.00			314,162
Sonoma		110.02			1,329,386
Santa Fé Pacific Railroad	242.542		9,000 00	2,182,878	
Kern		35.914			323,226
San Bernardino		206.628			1,859,652
San Francisco and San Joa- quin Valley Railway	374.71		8,539 93	3,200,000	
Contra Costa		55.41			473,198
Fresno		56.99			486,691
Kern		41.46			354,065
Kings		27.68			236,385
Madera		26.44			225,796
Merced		40.36			344,672
San Joaquin		39.50			337,327
Stanislaus		21.14			180,534
Tulare		65.73			561,332
Southern California Railway	487.358		12,311 28	6,000,000	
Los Angeles		85.749			1,055,680
Orange		62.691			771,806
Riverside		97.075			1,195,117
San Bernardino		136.691			1,682,841
San Diego		105.152			1,294,556
North Pacific Coast Railroad	84.50		7,100 58	600,000	
Marin		58.50			415,385
Sonoma		26.00			184,615
Pacific Coast Railway	76.10		3,285 15	250,000	
San Luis Obispo		39.50			129,763
Santa Barbara		36.60			120,237
Pajaro Valley Con. R. R.	32.90		6,079 02	200,000	
Monterey		32.11			195,197
Santa Cruz		.79			4,803
Nevada County Narrow Gauge Railroad	22.50		5,000 00	112,500	
Nevada		18.78			93,900
Placer		3.72			18,600
Nevada-California-Oregon Ry.	99.86		2,002 80	200,000	
Lassen		96.60			193,470
Sierra		3.26			6,530
Sierra Valleys Railway	30.50		\$1,761 47	\$53,725	
Lassen		4.20			7,400
Plumas		26.30			46,325
Alameda and San Joaquin Railroad	35.88		4,180 59	150,000	
Alameda		2.79			11,664
San Joaquin		33.09			138,336
Sierra Railway of California	56.30		5,000 00	281,500	
Stanislaus		19.50			97,500
Tuolumne		36.80			184,000
Randsburg Railway	29.66		4,214 43	125,000	
Kern		.66			2,782
San Bernardino		29.00			122,218

SCHEDULE E—Continued.

Showing Assessment and Apportionment of Railways for 1902.

Name of each Railway Assessed and Name of the County to which Assessment is Apportioned.	Number of Miles of Railway Operated in the State.	Number of Miles of each Railway in each County.	Value per Mile of each Railway.	Total Assessment of each Railway.	Amount of Assessment of each Railway Apportioned to each County.
Gualala Mill Railroad	13.00	.....	\$3,076 92	\$40,000	.....
Mendocino	5.00	.....	.....	\$15,385
Sonoma	8.00	.....	.....	24,615
California and Nevada R. R.	23.00	.....	2,173 91	50,000	.....
Alameda	5.50	.....	.....	11,957
Contra Costa	17.50	.....	.....	38,043
Lake Tahoe Railway	15.30	.....	3,267 98	50,000	.....
Nevada	1.10	.....	.....	3,595
Placer	14.20	.....	.....	46,405
Boca and Loyalton R. R.	38.60	.....	3,238 34	125,000	.....
Nevada	2.70	.....	.....	8,744
Plumas	11.20	.....	.....	36,269
Sierra	24.70	.....	.....	79,987
San Francisco and San Mateo Electric Railway	29.362	.....	10,000 00	293,620	.....
San Francisco	21.574	.....	.....	215,740
San Mateo	7.788	.....	.....	77,880
Pullman Company (rolling stock operated in Cal.)	2,864.61	.....	157 09	450,000	.....
Alameda	8.40	.....	.....	1,320
Butte	45.00	.....	.....	7,069
Colusa	33.91	.....	.....	5,327
Contra Costa	115.25	.....	.....	18,105
Fresno	144.09	.....	.....	22,635
Glenn	28.90	.....	.....	4,540
Kern	195.21	.....	.....	30,665
Kings	27.79	.....	.....	4,366
Los Angeles	184.05	.....	.....	28,912
Madera	55 53	.....	.....	8,723
Merced	111.25	.....	.....	17,476
Monterey	110.30	.....	.....	17,327
Nevada	30.25	.....	.....	4,752
Orange	48 00	.....	.....	7,540
Placer	112.75	.....	.....	17,712
Riverside	92.60	.....	.....	14,547
Sacramento	46.00	.....	.....	7,226
San Benito	2.25	.....	.....	353
San Bernardino	353.38	.....	.....	55,512
San Diego	153.48	.....	.....	24,110
San Francisco	7.36	.....	.....	1,156
San Joaquin	110.64	.....	.....	17,380
San Luis Obispo	72.60	.....	.....	11,405
San Mateo	25 00	.....	.....	3,927
Santa Barbara	109.47	.....	.....	17,197
Santa Clara	57.00	.....	.....	8,954
Santa Cruz	2.15	.....	.....	338
Shasta	82 08	.....	.....	12,894
Sierra	2.15	.....	.....	338
Siskiyou	83 18	.....	.....	13,067
Solano	43.50	.....	.....	6,833
Stanislaus	68.59	.....	.....	10,775
Sutter	10.00	.....	.....	1,571
Tehama	57.83	.....	.....	9,084
Tulare	122.05	.....	.....	19,173
Ventura	54.50	.....	.....	8,561
Yolo	42 25	.....	.....	6,637
Yuba	15.87	.....	.....	2,493

SCHEDULE F.

Showing Apportionment of Railways to Counties for 1902.

Name of County and Road.	Amount Apportioned.	Total Assessment.
Alameda—		
Central Pacific	\$1,670,014	
South Pacific Coast	330,330	
Southern Pacific	178,500	
Alameda and San Joaquin	11,664	
California and Nevada	11,957	
Pullman's Palace Car Co.	1,320	
		\$2,203,785
Amador—		
Southern Pacific	120,000	
		120,000
Butte—		
Central Pacific	903,905	
Southern Pacific	208,500	
Pullman's Palace Car Co.	7,069	
		1,119,474
Calaveras—		
Southern Pacific	156,900	
		156,900
Colusa—		
Southern Pacific	508,650	
Pullman's Palace Car Co.	5,327	
		513,977
Contra Costa—		
Southern Pacific	1,200,750	
San Francisco and San Joaquin Valley	473,198	
California and Nevada	38,043	
Pullman's Palace Car Co.	18,105	
		1,730,096
El Dorado—		
Southern Pacific	458,250	
		458,250
Fresno—		
Central Pacific	642,777	
Southern Pacific	2,233,950	
San Francisco and San Joaquin Valley	486,691	
Pullman's Palace Car Co.	22,635	
		3,386,053
Glenn—		
Southern Pacific	685,500	
Pullman's Palace Car Co.	4,540	
		690,040
Inyo—		
Carson and Colorado	82,791	
		82,791
Kern—		
Southern Pacific	1,968,450	
Santa Fé Pacific	323,226	
San Francisco and San Joaquin Valley	354,065	
Randsburg	2,782	
Pullman's Palace Car Co.	30,665	
		2,679,188
Kings—		
Southern Pacific	349,800	
San Francisco and San Joaquin Valley	236,385	
Pullman's Palace Car Co.	4,366	
		590,551
Lassen—		
Nevada-California-Oregon	193,470	
Sierra Valleys	7,400	
		200,870
Los Angeles—		
Southern Pacific	3,022,200	
Southern California	1,055,680	
Pullman's Palace Car Co.	28,912	
		4,106,792

SCHEDULE F—Continued.

Showing Apportionment of Railways to Counties for 1902.

Name of County and Road.	Amount Apportioned.	Total Assessment.
Madera—		
Central Pacific	\$583,721	
Southern Pacific	315,000	
San Francisco and San Joaquin Valley	225,796	
Pullman's Palace Car Co.	8,723	
		\$1,133,240
Marin—		
San Francisco and North Pacific	356,452	
North Pacific Coast	415,385	
		771,837
Mendocino—		
San Francisco and North Pacific	314,162	
Gualala Mill	15,385	
		329,547
Merced—		
Central Pacific	738,189	
Southern Pacific	787,500	
San Francisco and San Joaquin Valley	344,672	
Pullman's Palace Car Co.	17,476	
		1,887,837
Mono—		
Carson and Colorado	37,209	
		37,209
Monterey—		
Southern Pacific	1,950,450	
Pajaro Valley Consolidated	195,197	
Pullman's Palace Car Co.	17,327	
		2,162,974
Napa—		
Southern Pacific	711,450	
		711,450
Nevada—		
Central Pacific	607,625	
Boca and Loyalton	8,744	
Nevada County Narrow Gauge	93,900	
Pullman's Palace Car Co.	4,752	
Lake Tahoe	3,595	
		718,616
Orange—		
Southern Pacific	377,250	
Southern California	771,806	
Pullman's Palace Car Co.	7,540	
		1,156,596
Placer—		
Central Pacific	2,264,783	
Nevada County Narrow Gauge	18,600	
Lake Tahoe	46,405	
Pullman's Palace Car Co.	17,712	
		2,347,500
Plumas—		
Sierra Valleys	46,325	
Boca and Loyalton	36,269	
		82,594
Riverside—		
Southern Pacific	1,389,000	
Southern California Motor	30,000	
Southern California	1,195,117	
Pullman's Palace Car Co.	14,547	
		2,628,664
Sacramento—		
Central Pacific	823,558	
Southern Pacific	738,750	
Pullman's Palace Car Co.	7,226	
		1,569,534

SCHEDULE F—*Continued.**Showing Apportionment of Railways to Counties for 1902.*

Name of County and Road.	Amount Apportioned.	Total Assessment.
San Benito—		
Southern Pacific.....	\$264,750	
Pullman's Palace Car Co.....	353	\$265,103
San Bernardino—		
Southern Pacific.....	607,950	
Southern California Motor	30,000	
Santa Fé Pacific.....	1,859,652	
Southern California	1,682,841	
Randsburg.....	122,218	
Pullman's Palace Car Co.....	55,512	4,358,173
San Diego—		
Southern Pacific.....	1,316,850	
Southern California.....	1,294,556	
Pullman's Palace Car Co.....	24,110	2,635,516
San Francisco—		
Central Pacific.....	49,414	
Southern Pacific.....	110,400	
San Francisco and San Mateo	215,740	
Pullman's Palace Car Co.....	1,156	376,710
San Joaquin—		
Central Pacific.....	1,139,924	
Southern Pacific.....	1,073,850	
San Francisco and San Joaquin Valley	337,327	
Alameda and San Joaquin	138,336	
Pullman's Palace Car Co.....	17,880	2,706,817
San Luis Obispo—		
Southern Pacific.....	1,089,000	
Pacific Coast	129,763	
Pullman's Palace Car Co.....	11,405	1,230,168
San Mateo—		
Southern Pacific.....	376,500	
San Francisco and San Mateo	77,880	
Pullman's Palace Car Co.....	3,927	458,307
Santa Barbara—		
Southern Pacific.....	1,642,050	
Pacific Coast	120,237	
Pullman's Palace Car Co.....	17,197	1,779,484
Santa Clara—		
Central Pacific.....	170,738	
Southern Pacific.....	1,006,500	
South Pacific Coast	388,500	
Pullman's Palace Car Co.....	8,954	1,574,692
Santa Cruz—		
South Pacific Coast	290,850	
Southern Pacific.....	407,250	
Pajaro Valley Consolidated	4,803	
Pullman's Palace Car Co.....	338	703,241
Shasta—		
Central Pacific.....	1,648,722	
Pullman's Palace Car Co.....	12,894	1,661,616
Sierra—		
Central Pacific.....	43,187	
Nevada-California-Oregon	6,530	
Boca and Loyalton	79,987	
Pullman's Palace Car Co.....	338	130,042

SCHEDULE F—Continued.

Showing Apportionment of Railways to Counties for 1902.

Name of County and Road.	Amount Apportioned.	Total Assessment.
Siskiyou—		
Central Pacific.....	\$1,670,818	
Pullman's Palace Car Co.....	13,067	\$1,683,885
Solano—		
Southern Pacific.....	1,101,750	
Pullman's Palace Car Co.....	6,833	1,108,583
Sonoma—		
Southern Pacific.....	457,800	
San Francisco and North Pacific	1,329,386	
North Pacific Coast.....	184,615	
Gualala Mill.....	24,615	1,996,416
Stanislaus—		
Central Pacific.....	454,564	
Southern Pacific.....	852,900	
San Francisco and San Joaquin Valley.....	180,534	
Sierra Railway of California.....	97,500	
Pullman's Palace Car Co.....	10,775	1,596,273
Sutter—		
Central Pacific.....	200,863	
Southern Pacific.....	399,450	
Pullman's Palace Car Co.....	1,571	601,889
Tehama—		
Central Pacific.....	814,318	
Southern Pacific.....	259,350	
Pullman's Palace Car Co.....	9,084	1,082,752
Tulare—		
Central Pacific.....	254,098	
Southern Pacific.....	1,609,950	
San Francisco and San Joaquin Valley.....	561,332	
Pullman's Palace Car Co.	19,173	2,444,553
Tuolumne—		
Sierra Railway of California.....	184,000	184,000
Ventura—		
Southern Pacific.....	817,500	
Pullman's Palace Car Co.....	8,561	826,061
Yolo—		
Southern Pacific.....	1,317,000	
Pullman's Palace Car Co.....	6,637	1,323,637
Yuba—		
Central Pacific.....	318,777	
Southern Pacific.....	187,050	
Pullman's Palace Car Co.....	2,493	508,320
Total		\$64,812,603

SCHEDULE G.

*Showing Kinds of Personal Property Assessed, and the Assessed Value,
for 1902.*

Counties.	State, County, or Municipal Bonds.	Jewelry or Plate.	Watches.	
	Value.	Value.	Number.	Value.
Alameda		\$42,750		\$85,000
Alpine		25	34	361
Amador		3,150	12	485
Butte		23,750	873	8,730
Calaveras		1,500	800	8,000
Colusa		455	400	4,875
Contra Costa		1,950	1,130	11,300
Del Norte		120	99	1,270
El Dorado		1,210	280	2,800
Fresno		6,263	3,843	21,058
Glenn		1,704		2,180
Humboldt	1,000	1,760	985	13,895
Inyo		90	235	2,350
Kern		5,000		7,500
Kings		720	215	2,571
Lake	400	490	187	2,190
Lassen		734	98	1,075
Los Angeles	133,765	86,285	6,846	82,401
Madera		440	262	3,150
Marin		5,715		1,360
Mariposa		100	200	2,000
Mendocino		15,000	350	3,500
Merced		1,368	391	5,343
Modoc		430	230	2,526
Mono		105	109	1,785
Monterey		3,340		2,680
Napa		14,050		14,150
Nevada		680	92	3,455
Orange		1,510	1,835	12,845
Placer		6,500	640	11,540
Plumas		275	30	655
Riverside		855	786	7,050
Sacramento		33,000		24,500
San Benito		1,100	42	1,060
San Bernardino		11,215	1,585	8,600
San Diego	16,500	11,500	1,850	18,350
San Francisco	817,690	683,410		178,790
San Joaquin		8,942		34,950
San Luis Obispo		1,530	507	4,569
San Mateo		8,675	129	3,460
Santa Barbara		4,210		5,490
Santa Clara		23,420		40,250
Santa Cruz			271	3,275
Shasta		2,755	442	5,787
Sierra		540	40	1,470
Siskiyou		4,700	450	4,625
Solano		3,325		4,673
Sonoma		12,150	2,410	17,610
Stanislaus		1,805	663	9,175
Sutter		50	306	3,030
Tehama		1,535	678	9,760
Trinity	1,050	1,529	341	4,863
Tulare		855	493	4,635
Tuolumne			85	1,700
Ventura		1,240	253	3,265
Yolo		1,410		4,404
Yuba		200	95	1,160
Totals	\$970,405	\$1,047,420		\$729,531

SCHEDULE G—Continued.

Showing Kinds of Personal Property Assessed, and the Assessed Value, for 1902.

Counties.	Wine and Liquor Casks and Tanks.	Brandies and Other Liquors.		Wines.	
	Value.	Gallons.	Value.	Gallons.	Value.
Alameda	\$3,000	37,500	\$75,000	100,000	\$150,000
Alpine		70	145		
Amador	900	200	200	400	80
Butte					
Calaveras	500	5,000	10,000	15,000	1,500
Colusa			10,850		
Contra Costa	22,800		17,350	356,500	43,780
Del Norte		930	1,860	602	301
El Dorado	3,300	600	900	10,400	1,560
Fresno	78,463	29,536	7,384	976,300	195,260
Glenn					
Humboldt					
Inyo					
Kern			13,000		
Kings					
Lake				5,250	815
Lassen		372	1,116	310	420
Los Angeles	20,080		87,320	317,896	39,568
Madera				29,830	14,915
Marin					4,375
Mariposa		1,000	3,000	300	75
Mendocino	270	1,400	3,500	6,300	630
Merced		725	725	3,030	337
Modoc		970	1,940	35	60
Mono			2,850		
Monterey	1,130		48,175		12,210
Napa	45,500	17,450	5,980	1,100,000	165,000
Nevada	200		1,900	1,100	420
Orange	1,250	1,350	675	23,190	3,475
Placer	290	480	960	3,600	360
Plumas			2,555		
Riverside			15		15
Sacramento		7,500	7,500	400,000	40,000
San Benito	3,250	300	330	21,870	1,530
San Bernardino	3,520	1,020	650	92,000	9,200
San Diego		1,500	2,650	20,000	3,000
San Francisco	119,655		953,255		351,640
San Joaquin		6,587	6,587	768,150	76,815
San Luis Obispo	950		6,477	20,660	2,066
San Mateo	2,380		7,235		
Santa Barbara					
Santa Clara	135,300	105,000	131,250	710,000	106,500
Santa Cruz	5,010				7,690
Shasta			15,810	1,670	375
Sierra		255	500		
Siskiyou		6,500	13,000		
Solano	5,000		18,750		6,202
Sonoma	86,600	10,100	3,030	1,792,000	215,040
Stanislaus				55,000	6,875
Sutter					
Tehama	30,020	68,000	17,000	309,200	38,650
Trinity			1,905		
Tulare					11,215
Tuolumne				2,000	600
Ventura		10,600	1,290		
Yolo					
Yuba	2,000		800	1,080	5,380
Totals	\$571,368		\$1,485,419		\$1,517,934

SCHEDULE G—Continued.

Showing Kinds of Personal Property Assessed, and the Assessed Value, for 1902.

Counties.	Cattle—Beef.		Cattle—Stock.		Cows—Thoroughbred.	
	Number.	Value.	Number.	Value.	Number.	Value.
Alameda	2,000	\$40,000	3,000	\$60,000	1,600	\$64,000
Alpine	5	150	645	9,675		
Amador	25	625	10,327	103,200		
Butte	127	5,080	6,173	123,460		
Calaveras	100	3,000	10,000	150,000	10	400
Colusa			4,630	94,850		
Contra Costa	60	2,700	4,895	73,425	50	2,250
Del Norte			822	9,865		
El Dorado			5,200	104,000		
Fresno	6,340	158,500	29,760	446,400	9	450
Glenn	91	2,730	4,106	103,025		
Humboldt	2,821	61,875	14,260	160,330	45	2,280
Inyo	498	13,650	10,426	125,110	15	750
Kern	1,350	28,750	55,000	655,200		
Kings			13,858	211,624		
Lake	20	660	4,111	82,720	6	240
Lassen	1,563	46,890	23,174	440,306	8	400
Los Angeles	168	3,365	10,304	129,070		
Madera			18,204	291,265		
Marin			4,560	57,000		
Mariposa	100	3,000	2,000	30,000		
Mendocino	220	5,500	12,110	181,650		
Merced	554	13,850	30,269	452,819		
Modoc			29,030	497,359	67	2,925
Mono	450	9,000	6,158	95,785		
Monterey	80	2,700	21,000	316,515		
Napa	400	16,000	4,850	97,000	200	16,000
Nevada			2,610	32,960		
Orange	580	8,700	5,500	55,000		
Placer	78	1,560	2,040	35,180		
Plumas	175	4,040	4,030	61,910		
Riverside	45	450	5,204	43,510	118	900
Sacramento	330	8,250	3,400	51,000	180	6,300
San Benito			11,303	180,825	11	400
San Bernardino	340	5,100	4,850	38,800	28	1,100
San Diego	700	14,000	17,600	264,000		
San Francisco		61,700				
San Joaquin	215	4,300	13,721	137,212	191	9,550
San Luis Obispo	563	14,080	23,919	406,630	107	5,335
San Mateo	30	1,200	2,460	31,685		
Santa Barbara			20,140	288,010		
Santa Clara	465	11,625	8,210	131,360	115	4,600
Santa Cruz	141	3,990				
Shasta	231	5,315	12,210	181,980	52	1,820
Sierra	36	925	1,700	26,815		
Siskiyou	475	11,875	14,960	224,400	9	450
Solano	515	13,550	5,000	85,175	20	1,000
Sonoma	410	9,450	8,210	123,150	300	12,000
Stanislaus	273	6,785	13,783	213,845		
Sutter	17	520	4,317	65,028		
Tehama	129	3,870	18,120	317,090	356	18,555
Trinity	64	1,920	3,942	59,130		
Tulare	245	11,070	27,665	418,627		
Tuolumne			2,500	37,500	2	100
Ventura			9,854	83,970		
Yolo	235	6,010	7,012	106,733	19	755
Yuba	130	3,000	6,300	71,000		
Totals	23,394	\$631,310	599,432	\$8,879,178	3,518	\$152,560

SCHEDULE G—Continued.

Showing Kinds of Personal Property Assessed, and the Assessed Value, for 1902.

Counties.	Cows—American.		Cows—Graded.		Cows—Common.		Calves.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
Alameda	7,000	\$105,000	400	\$8,000	3,000	\$45,000	3,500	\$17,500
Alpine	250	5,010					408	2,856
Amador					2,331	45,445	860	4,250
Butte					1,721	39,583	1,590	12,720
Calaveras	10	300			1,500	30,000	3,000	15,000
Colusa	1,251	37,936					2,557	27,271
Contra Costa	4,490	98,780					1,510	18,120
Del Norte					3,537	60,129	787	5,509
El Dorado					2,010	50,250	1,420	11,360
Fresno	95	3,800	307	6,210	6,845	164,500	4,723	23,615
Glenn	1,104	32,935					2,657	28,263
Humboldt	244	6,570			18,874	377,620	8,390	41,950
Inyo			261	6,525	1,013	25,325	4,300	25,800
Kern	500	10,000					7,000	35,000
Kings					4,027	101,455	4,011	24,749
Lake					1,187	35,740	2,333	23,310
Lassen					2,375	59,375	10,670	96,030
Los Angeles	6,334	157,375			9,967	176,790	4,500	31,300
Madera	868	22,560					3,169	22,950
Marin	25,430	432,460					4,235	21,175
Mariposa	100	2,000					500	2,500
Mendocino					5,607	112,140	4,500	24,750
Merced	174	5,610	3,189	80,870			4,232	25,763
Modoc	1,200	33,970					10,672	106,811
Mono					268	6,685	420	3,210
Monterey					5,700	112,250	900	7,265
Napa	4,750	118,750					2,600	26,000
Nevada			306	7,825	1,520	31,010	865	4,325
Orange	5,710	128,475					2,175	10,875
Placer					2,703	67,575	967	5,850
Plumas					2,763	55,600	3,108	31,070
Riverside			129	2,725	3,356	58,170	1,589	8,005
Sacramento	6,300	157,500					3,400	17,000
San Benito	2,794	69,590					7,057	58,150
San Bernardino	1,920	19,200	760	1,140			815	4,075
San Diego	500	12,500			8,000	160,000	2,500	8,750
San Francisco								
San Joaquin	7,273	160,010					7,549	37,745
San Luis Obispo			11,901	238,020			9,120	63,844
San Mateo			3,362	75,860	5,983	126,370	1,182	5,965
Santa Barbara					6,321	125,160	2,460	12,540
Santa Clara	6,120	153,000	350	10,500			2,520	12,610
Santa Cruz					4,175	83,500	1,749	10,490
Shasta			153	3,000	1,793	39,320	7,251	56,218
Sierra	824	20,600					124	1,240
Siskiyou	40	1,000			2,980	59,600	5,100	51,000
Solano	6,500	145,350					1,300	13,050
Sonoma	18,420	368,400			260	3,900	5,250	31,500
Stanislaus	5,056	137,405					5,824	42,935
Sutter	2	100			2,174	57,135	2,561	17,460
Tehama	1,475	44,260						
Trinity					291	7,275	447	2,235
Tulare					5,048	129,110	3,695	35,076
Tuolumne			100	2,500	450	9,000	450	2,250
Ventura	2,304	35,773					2,812	14,301
Yolo					5,497	146,095	2,067	19,129
Yuba	10	200	10	300	1,525	31,010	614	4,700
Totals	119,048	\$2,526,419	21,228	\$443,475	124,801	\$2,632,017	159,705	\$1,266,415

SCHEDULE G—Continued.

*Showing Kinds of Personal Property Assessed, and the Assessed Value,
for 1902.*

Counties.	Oxen.		Hogs.		Mules.		Jacks and Jennies.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
Alameda.....			3,000	\$6,000	250	\$10,000	5	\$50
Alpine.....			56	156	8	120		
Amador.....	21	\$630	1,981	4,950	121	3,000		
Butte.....			5,170	10,340	2,137	74,795	32	1,050
Calaveras.....	30	600	1,700	3,500	150	7,500	10	50
Colusa.....			8,880	28,571	2,945	125,579	20	2,810
Contra Costa.....			2,560	12,800	400	20,000	2	250
Del Norte.....			457	1,371				
El Dorado.....	48	720	1,320	6,600	42	990	12	60
Fresno.....			43,426	65,139	5,117	179,095	36	432
Glenn.....			9,201	27,180	2,839	169,935	13	2,825
Humboldt.....			5,365	16,295	437	13,670		
Inyo.....			1,024	2,263	329	8,235	5	425
Kern.....			6,000	15,000	1,500	45,000	130	2,000
Kings.....			12,384	32,312	424	13,395	13	1,000
Lake.....			5,533	11,242	239	8,235	7	130
Lassen.....			1,581	4,743	184	7,360	45	3,900
Los Angeles.....			3,456	18,422	1,921	51,020	60	925
Madera.....			3,380	12,440	1,922	65,360	15	1,095
Marin.....	10	300	8,560	23,525	8	200		
Mariposa.....	10	300	1,200	3,600	200	4,000	20	100
Mendocino.....	20	500	11,108	25,548	300	7,800	15	525
Merced.....			8,440	24,922	3,267	107,547	155	4,460
Modoc.....	30	650	3,492	8,983	597	14,955	100	4,540
Mono.....			123	410	28	645	4	180
Monterey.....			6,090	12,130	80	1,100	10	200
Napa.....			6,000	12,500	500	20,000		1,000
Nevada.....	9	175	430	1,695	48	1,165		
Orange.....			1,850	5,550	552	16,560		
Placer.....			720	2,210	360	12,600		
Plumas.....	7	140	705	2,404	20	410		
Riverside.....	13	170	1,075	3,078	707	10,000	5	290
Sacramento.....			6,000	18,000	500	12,500	50	3,750
San Benito.....			3,147	9,380	39	1,165		
San Bernardino.....			50	250	185	3,720	15	90
San Diego.....			1,500	5,000	350	8,750	15	150
San Francisco.....				9,200		3,700		
San Joaquin.....			8,000	21,715	5,930	136,400	75	1,340
San Luis Obispo.....			8,470	25,432	536	12,870	5	250
San Mateo.....			1,460	4,625	30	1,200		
Santa Barbara.....			3,740	20,370	1,035	36,425	7	280
Santa Clara.....			2,860	8,580	125	3,750	23	230
Santa Cruz.....	87	1,750	1,508	7,430	20	560		
Shasta.....	23	465	6,939	17,181	526	14,235	13	330
Sierra.....	17	425	5	35	24	735		
Siskiyou.....	25	500	2,115	6,410	390	11,780		
Solano.....			5,000	9,500	2,000	62,100	65	1,525
Sonoma.....	48	720	2,780	5,560	440	8,800	15	170
Stanislaus.....			7,070	21,210	4,872	171,435	38	4,920
Sutter.....			5,489	15,027	1,850	71,687	6	800
Tehama.....			7,723	23,170	1,699	58,730	20	1,690
Trinity.....			872	2,165	169	4,745	7	130
Tulare.....			11,227	38,372	1,393	57,895	38	2,360
Tuolumne.....			300	900	60	2,400	25	200
Ventura.....			3,169	6,882	479	11,275		
Yolo.....			13,000	22,175	2,884	134,761	45	5,040
Yuba.....	10	1,100	2,460	7,500	700	16,455	19	485
Totals.....	408	\$9,145	261,091	\$707,946	54,212	\$1,848,544	1,215	\$52,032

SCHEDULE G—Continued.

*Showing Kinds of Personal Property Assessed, and the Assessed Value,
for 1902.*

Counties.	Horses—Thoroughbred.		Horses—Standard Bred.	
	Number.	Value.	Number.	Value.
Alameda	100	\$20,000	400	\$80,000
Alpine				
Amador				
Butte			192	15,360
Calaveras	4	600	10	750
Colusa				
Contra Costa	2	800	200	15,000
Del Norte				
El Dorado				
Fresno	19	3,800	68	6,800
Glenn				
Humboldt	6	1,400		
Inyo	24	2,080		
Kern				
Kings	16	1,975		
Lake	8	131	2	250
Lassen			16	1,200
Los Angeles	200	20,955		
Madera				
Marin				
Mariposa	5	250		
Mendocino	10	1,500		
Merced			76	4,975
Modoc				
Mono				
Monterey			20	1,800
Napa	79	19,750		
Nevada			1	100
Orange			20	4,000
Placer			7	1,640
Plumas				
Riverside	3	250		
Sacramento	360	90,000	240	14,400
San Benito			12	2,350
San Bernardino	22	2,250	108	5,540
San Diego			12	1,200
San Francisco	?	28,655		
San Joaquin				
San Luis Obispo			11	1,100
San Mateo	1	2,500	3	1,500
Santa Barbara			19	1,375
Santa Clara	120	37,500	250	37,500
Santa Cruz			6	1,500
Shasta	1	100		
Sierra				
Siskiyou	7	1,005		
Solano			20	2,850
Sonoma	40	4,000	25	2,000
Stanislaus			59	3,690
Sutter			6	750
Tehama	16	2,175		
Trinity			1	100
Tulare	9	2,695		
Tuolumne	2	250		
Ventura				
Yolo	57	4,870		
Yuba			4	600
Totals	1,111	\$249,491	1,888	\$208,330

SCHEDULE G—Continued.

Showing Kinds of Personal Property Assessed, and the Assessed Value,
for 1902.

Counties.	Horses—American.		Horses—Common.		Colts.	
	Number.	Value.	Number.	Value.	Number.	Value.
Alameda	6,000	\$120,000	750	\$7,500	200	\$2,000
Alpine	42	1,415	182	3,522	28	295
Amador	2,321	57,925			255	3,198
Butte			2,395	88,615	560	8,400
Calaveras	200	800	2,000	40,000	500	5,000
Colusa	2,494	84,116			486	12,555
Contra Costa	4,740	178,120	150	1,800	810	12,150
Del Norte			522	14,050	64	805
El Dorado			2,260	33,900	220	2,640
Fresno	1,354	54,160	21,436	535,920	2,700	27,000
Glenn	1,998	70,488			373	7,906
Humboldt	763	50,285	4,874	154,640	520	10,890
Inyo	1,476	43,186	1,583	19,468	295	2,668
Kern	1,500	60,000	6,000	90,000	1,500	15,000
Kings			3,900	103,718	775	11,381
Lake			2,017	66,440	412	7,940
Lassen	2,721	108,739	4,857	87,634	716	7,160
Los Angeles	20,951	506,405			883	9,920
Madera			3,201	70,425	412	4,240
Marin	678	41,325	1,142	28,225	75	1,875
Mariposa			1,500	30,000	100	1,000
Mendocino	545	27,250	4,213	104,325	475	5,225
Merced	4,399	107,021	753	17,040	874	9,950
Modoc	2,123	67,440	4,253	66,690	857	8,370
Mono			973	15,215	159	1,630
Monterey	2,100	88,090	1,200	32,320	400	4,040
Napa	3,100	124,000	6,000	120,000	690	12,000
Nevada	186	11,160	1,964	45,660	154	2,310
Orange	1,870	56,100	2,402	60,050	1,430	14,300
Placer	248	13,640	3,070	92,100	460	9,200
Plumas			1,270	36,330	241	4,780
Riverside	572	14,645	4,539	80,570	373	3,975
Sacramento	5,500	137,500			2,020	77,200
San Benito			3,305	115,760	800	10,880
San Bernardino	2,340	35,000	1,520	15,200	280	1,680
San Diego	620	15,500	2,200	30,250		
San Francisco		397,240				
San Joaquin	20,530	369,554			4,321	30,250
San Luis Obispo	1,286	38,580	7,349	132,289	944	11,335
San Mateo	268	26,840	2,286	90,645	162	3,240
Santa Barbara	1,521	53,395	3,142	72,880	340	4,490
Santa Clara	8,160	314,400	3,650	73,000	1,210	12,100
Santa Cruz			3,932	116,960	167	2,560
Shasta	69	3,740	4,705	116,671	530	4,055
Sierra	288	10,970	322	6,565	67	1,095
Siskiyou			4,240	84,160	390	3,120
Solano	100	4,000	9,600	192,650	1,110	11,100
Sonoma	6,610	198,300	4,670	93,400	1,610	16,100
Stanislaus	2,764	63,445	2,964	63,445	1,592	22,270
Sutter	931	37,090	2,220	45,630	774	11,960
Tehama	773	35,010	3,500	85,900	400	6,995
Trinity	93	4,650	773	18,735	67	795
Tulare	435	21,950	7,068	172,655	1,249	12,295
Tuolumne	120	6,000	1,250	31,250	350	3,500
Ventura	3,088	88,715	3,489	65,088	667	8,016
Yolo	4,523	138,055			818	13,640
Yuba	16	1,050	3,506	79,350	300	3,100
Totals	122,416	\$3,887,294	165,096	\$3,748,650	38,075	\$501,579

SCHEDULE G—Continued.

*Showing Kinds of Personal Property Assessed, and the Assessed Value,
for 1902.*

Counties.	Sheep—Imported or Fine.		Sheep—Graded.		Sheep—Common.		Lams.	
	Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
Alameda	200	\$800	300	\$600	4,000	\$4,000	1,000	\$500
Alpine					8	12	8	4
Amador					3,250	4,875		
Butte					34,122	76,774		
Calaveras					20,000	30,000	10,000	5,000
Colusa					21,832	54,210	2,092	2,092
Contra Costa					4,460	11,150	1,220	1,830
Del Norte					1,620	2,430		
El Dorado					4,200	8,400		
Fresno			1,946	7,784	81,352	162,704	19,275	9,638
Glenn					73,444	183,498		
Humboldt			593	2,945	92,465	137,210		
Inyo	4	20			11,685	25,627		
Kern					60,000	125,000	15,000	7,500
Kings			208	1,040	52,685	105,371	16,204	8,102
Lake					7,659	15,358		
Lassen			65	325	21,850	65,550		
Los Angeles					23,484	48,225	5,551	5,855
Madera					36,865	73,730	15,450	7,725
Marin					150	300	50	50
Mariposa					20,000	40,000	4,000	2,000
Mendocino					115,010	191,267	5,280	2,640
Merced			725	3,625	70,077	141,083	33,358	17,263
Modoc			250	1,570	27,609	69,561	9,105	17,910
Mono					165	545		
Monterey					14,200	28,400	1,400	2,100
Napa					3,000	7,500		
Nevada					3,200	5,400		
Orange					28,900	57,800	9,630	4,815
Placer	120	600			31,720	63,440	10,300	7,725
Plumas					334	578		
Riverside					9,970	16,120		
Sacramento					15,000	30,000	7,000	3,500
San Benito					11,819	23,995	4,210	2,875
San Bernardino					1,000	2,000		
San Diego					4,500	9,000	600	300
San Francisco						8,800		
San Joaquin					22,616	45,232	2,770	1,540
San Luis Obispo			10,188	20,376	8,437	13,500	2,370	1,778
San Mateo					362	740		
Santa Barbara					52,510	105,020		
Santa Clara					850	2,550	320	640
Santa Cruz					760	1,530		
Shasta			26	190	26,060	54,534	74	105
Sierra								
Siskiyou					6,350	15,875		
Solano					21,000	39,100		
Sonoma	20	140	750	2,250	18,100	36,200	1,700	850
Stanislaus					34,311	71,165	14,620	7,300
Sutter			164	940	43,345	95,030	4,599	5,375
Tehama			1,987	9,935	202,518	506,295		
Trinity					4,420	6,630	20	10
Tulare	1,325	6,625			42,317	122,838	2,025	3,015
Tuolumne					1,500	2,250	500	250
Ventura					7,025	12,285		
Yolo	1,200	6,250	240	1,200	29,667	64,114	188	275
Yuba					26,700	53,345		
Totals	2,869	\$14,435	17,442	\$52,780	1,460,483	\$3,078,146	199,919	\$129,562

SCHEDULE G—Continued.

Showing Kinds of Personal Property Assessed, and the Assessed Value,
for 1902.

Counties.	Goats—Angora.		Goats—Common.		Poultry.		Dogs.	
	Number.	Value.	Number.	Value.	Dozen.	Value.	Number.	Value.
Alameda	100	\$200	400	\$400	10,000	\$30,000		
Alpine					80	240		
Amador			2,140	2,152	86	258		
Butte	270	810	1,112	2,224	913	2,739		
Calaveras			1,000	500	1,000	2,500		
Colusa					1,150	3,440	16	365
Contra Costa			80	160	3,150	7,875		
Del Norte					292	730		
El Dorado			2,300	2,300	2,800	7,000	12	60
Fresno					13,352	40,056		
Glenn			5,826	11,729	1,801	5,145		
Humboldt					2,212	5,562	564	4,225
Inyo			700	700	510	1,530	120	2,400
Kern	1,800	5,200	3,000	3,000	1,900	3,800		
Kings			100	165	423	1,062		
Lake			4,433	8,416	1,356	3,426		
Lassen			17	51	1,274	2,548		
Los Angeles	957	2,864	1,055	1,225	5,000	14,512		
Madera					1,106	2,765		
Marin					3,500	7,250		
Mariposa			200	100	300	900		
Mendocino			2,160	3,780	3,000	10,050		
Merced			1,515	1,515	3,221	6,585		
Modoc			275	665	968	1,965		
Mono					119	597	67	340
Monterey			2,200	2,200	160	505		
Napa					2,500	7,500		
Nevada			690	725	700	1,540	4	125
Orange					10,940	21,880		
Placer			560	560	1,260	3,880		
Plumas								
Riverside			57	77	1,736	3,185		
Sacramento			100	100	7,000	21,000		
San Benito	280	770	240	470	5,540	13,850		
San Bernardino			65	140	960	1,925		
San Diego	120	120			750	2,250		
San Francisco						5,200		
San Joaquin			184	184	4,660	9,220		
San Luis Obispo	205	410	1,879	1,879	6,943	20,830		
San Mateo						1,375	18	325
Santa Barbara					3,945	7,890		
Santa Clara			85	85	13,125	39,375		
Santa Cruz			1,190	1,480	2,940	7,350		
Shasta	1,792	2,180	8,083	10,209	1,696	4,613	22	260
Sierra			75	75				
Siskiyou			180	225	860	2,135		
Solano					2,000	3,500		
Sonoma	380	760	800	1,200	8,500	25,500		
Stanislaus			32	40	1,173	2,935		
Sutter			40	40	2,891	9,203		
Tehama			8,212	14,370	2,386	5,965		
Trinity			75	115	356	1,780	44	636
Tulare			179	281	1,480	3,029		
Tuolumne					780	3,900		
Ventura			900	1,300	2,003	2,003		
Yolo			40	60	2,740	6,450		
Yuba			308	400	504	1,120	14	100
Totals	5,904	\$13,314	52,487	\$75,297	150,041	\$403,473	881	\$8,836

SCHEDULE G—Continued.

Showing Kinds of Personal Property Assessed, and the Assessed Value, for 1902.

Counties.	Traction Engines.	Farming Utensils.	Wagons and other Vehicles.	Automobiles.	Machinery.	Tanks— Wine and Liquor.	Tanks— Oil.
	<i>Value.</i>	<i>Value.</i>	<i>Value.</i>	<i>Value.</i>	<i>Value.</i>	<i>Value.</i>	<i>Value.</i>
Alameda	\$5,000	\$180,000	\$170,000		\$275,000	\$3,000	\$10,000
Alpine		1,533	3,305		5,330		
Amador		9,372	63,586		15,260	900	500
Butte	11,000	23,925	69,780		512,420		
Calaveras	500	10,000	40,000		100,000	500	
Colusa		21,271	37,800		93,650		
Contra Costa		34,810	62,450		755,375	22,800	25,310
Del Norte		1,732	7,185		30,540	1,750	
El Dorado	1,500	10,980	34,500		12,600	3,300	
Fresno			202,950		111,235	78,463	49,540
Glenn	3,600	13,426	29,103		51,402		
Humboldt		16,980	92,345		178,265		
Inyo		9,255	22,292		16,263		
Kern		21,000	75,000		500,000		240,000
Kings	3,275	10,592	42,910		21,100		
Lake		7,569	36,929		16,696		
Lassen	2,000	7,135	32,905		25,468		
Los Angeles		45,873	355,986	\$21,675	747,268	20,080	68,170
Madera		11,390	27,165		50,055		
Marin	600	3,100	29,840		32,315		
Mariposa		5,000	9,200		50,000		
Mendocino		15,000	70,800		230,749	270	1,000
Merced	2,750	20,336	55,875		53,417		
Modoc	2,930		39,433		28,433		
Mono		893	9,645		5,000		
Monterey		237,100	92,100		28,595	1,130	1,000
Napa		18,400	91,250		56,500	45,500	
Nevada	1,900	4,625	51,500		31,200	200	
Orange	6,880	35,240	60,150		149,650	1,250	7,200
Placer		20,490	47,320		63,400	290	3,600
Plumas	2,800	7,453	21,030		2,215		
Riverside	1,735	14,810	48,985		46,555		
Sacramento		35,000	75,000		250,000		
San Benito		10,045	33,235	250	36,090	3,250	
San Bernardino	4,000	20,400	37,850		237,900	3,520	5,500
San Diego	400	19,400	56,200		80,000		
San Francisco			612,130		4,110,800	119,655	67,000
San Joaquin		43,500	166,872		223,283		
San Luis Obispo		30,574	76,586		62,376	950	1,225
San Mateo	150	8,675	46,950		87,645	2,380	
Santa Barbara			147,270		94,190		
Santa Clara		47,650	207,150		173,250	135,300	
Santa Cruz		10,775	82,305		172,570	5,010	
Shasta	5,500	10,790	69,443		68,877		
Sierra	4,050	3,195	8,560		4,350		
Siskiyou	12,000	19,150	19,990		120,500		
Solano		27,650	113,310		143,050	5,000	
Sonoma	900	45,320	141,180		93,200	86,600	400
Stanislaus		22,750	64,280		113,065		
Sutter		20,485	33,855		36,025		
Tehama	2,000	16,015	58,440		86,320	30,020	
Trinity	810	1,990	14,653		23,240	150	
Tulare	2,580	19,660	68,685	1,000	51,982		
Tuolumne	1,000	2,240	10,600		299,300		600
Ventura		25,163	50,554		296,990		13,472
Yolo	400	27,307	58,183		56,507		
Yuba	550	15,070	43,000		117,485	2,000	
Totals	\$80,810	\$1,312,094	\$4,329,605	\$22,925	\$11,334,951	\$573,268	\$494,517

SCHEDULE G—Continued.

Showing Kinds of Personal Property Assessed, and the Assessed Value,
for 1902.

Counties.	Hay.	Wool.	Wood.	Coal.	Lumber.
	Value.	Value.	Value.	Value.	Value.
Alameda	\$100,000	\$500	\$6,000	\$300,000	\$200,000
Alpine	1,025		450		400
Amador	2,500		320		5,280
Butte	3,500		1,870		37,800
Calaveras	1,500		8,000		8,000
Colusa	385		2,445		
Contra Costa	12,630		1,260	21,600	104,000
Del Norte	50		50		25,800
El Dorado	1,915		930		84,000
Fresno	6,445	3,495	7,200	17,130	133,520
Glenn	325		6,335		5,440
Humboldt	1,295	965	8,745	670	154,450
Inyo	3,935		150		360
Kern	8,000		1,500	8,000	40,000
Kings	2,280		3,700		9,220
Lake	585		915		270
Lassen	7,610				
Los Angeles	21,550		6,130	54,485	396,205
Madera	6,720		470		5,200
Marin	4,700		1,600		4,100
Mariposa	3,200				4,000
Mendocino	2,420		5,000		45,000
Merced	3,435	2,730	1,370	330	
Modoc	7,640		75		
Mono	2,480		125		715
Monterey	3,050	10	410	1,300	23,120
Napa	3,500	1,000	2,000	1,200	21,800
Nevada			7,500	22,500	45,600
Orange	1,040		10,000		8,415
Placer	2,025	600	5,400	6,240	15,800
Plumas	2,045		75		350
Riverside	9,325		755	90	10,205
Sacramento	8,000		14,000	18,000	80,000
San Benito	41,645		1,745		4,400
San Bernardino	1,520		750	720	36,400
San Diego	7,200	240	1,000	2,400	79,750
San Francisco	42,980	39,700	8,780	399,440	712,160
San Joaquin	14,720	5,925	4,890	3,980	127,365
San Luis Obispo	3,670		5,065	2,550	46,785
San Mateo	1,800			8,200	7,840
Santa Barbara					34,150
Santa Clara	7,000		15,400	17,100	32,150
Santa Cruz			12,355		35,920
Shasta	1,165	30	24,335	52,630	20,270
Sierra	385		90		8,340
Siskiyou	3,640		39,000		75,000
Solano	2,840		4,550	1,050	35,250
Sonoma	2,400	90	4,000	300	16,500
Stanislaus	2,260		2,115	200	13,950
Sutter	300		2,310		6,000
Tehama	1,025	25	4,425		42,690
Trinity	1,195		1,665		1,450
Tulare	2,635	2,400	4,360		15,495
Tuolumne					48,000
Ventura	2,720	2,540	2,685		55,805
Yolo	1,685	20	2,215		
Yuba	2,000	900	3,000	550	2,000
Totals	\$379,895	\$61,170	\$249,515	\$940,665	\$2,906,720

SCHEDULE G—Continued.

Showing Kinds of Personal Property Assessed, and the Assessed Value, for 1902.

Counties.	Typewriters.	Bicycles or Tricycles.	Firearms.	Libraries—Law, Medical, etc.	Pianos.	Musical Instruments.
	Value.	Value.	Value.	Value.	Value.	Value.
Alameda	\$6,000	\$105,000	\$2,000	\$6,000	\$310,000	\$15,000
Alpine	50	15	220		150	235
Amador	75			1,725	13,075	2,140
Butte	1,600	7,920	1,585	7,125	37,100	11,175
Calaveras	500	100	2,000	3,000	20,000	500
Colusa	300	450	2,525	4,670		19,985
Contra Costa	450	1,400	5,560	4,825	18,950	2,450
Del Norte	120	555	415	1,775	4,925	1,600
El Dorado	240	120	1,540	20,030	9,605	4,625
Fresno	1,890	6,550	2,875	5,950	21,140	
Glenn	530	765	1,105	2,380	9,635	1,005
Humboldt	675	525	2,260	9,335	45,980	13,845
Inyo	340	430	920	2,025	7,520	2,230
Kern	2,500	2,800	2,300	8,500		25,000
Kings	540	1,310	610	2,840	20,170	2,155
Lake	115	475	1,550	1,380		12,130
Lassen	370	510	1,190	1,825	7,495	3,560
Los Angeles	13,210	29,880	6,260	100,200	492,450	37,030
Madera	345	1,680	1,555	765	11,250	
Marin	875	1,260	300	2,100	24,380	495
Mariposa	750	900	1,500	1,000	5,000	3,000
Mendocino	375	2,000	5,275	6,825	27,500	9,050
Merced	700	680	2,025	4,165	18,395	2,910
Modoc	170	855	1,475	1,890	9,190	4,105
Mono	415	75	655	1,625	4,335	565
Monterey	270	900	1,050	1,790	12,320	1,790
Napa	500	20,200	6,350	13,650	35,600	10,200
Nevada	300	70	245	2,600	33,200	9,720
Orange	1,680	17,850	2,550	5,350	32,700	11,040
Placer	2,790	1,640			36,500	5,780
Plumas				2,000	2,500	3,870
Riverside	750	4,940	3,100	4,385	42,230	3,715
Sacramento	2,400	27,000	2,500	7,000	60,000	7,000
San Benito	340	835	1,355	1,790	12,875	815
San Bernardino	1,400	15,100	780	3,750	16,800	
San Diego	2,500	16,000	800	18,000	75,750	10,500
San Francisco	51,200	116,990	33,615	515,600	605,790	38,870
San Joaquin	3,240	6,285	4,950	15,900	42,320	12,980
San Luis Obispo	725	3,035	2,940	4,020	30,580	
San Mateo	150	560	485	11,740	14,865	840
Santa Barbara	2,130	3,185	3,815	9,850	34,155	
Santa Clara	13,000	81,600	5,200	25,500	170,540	5,100
Santa Cruz	420	2,340	480	3,820	39,215	
Shasta	585	925	1,780	8,260	32,460	
Sierra	160	30	130	765	3,780	1,480
Siskiyou	600	525	950	4,165	6,100	9,330
Solano	285	1,045	1,650	3,990		70,250
Sonoma	5,000	23,040	4,320	23,430	74,600	1,810
Stanislaus	485	2,145	2,620	4,385	27,650	7,165
Sutter	80	830	2,065	615	9,370	2,185
Tehama	665	1,465	3,680	2,710		38,805
Trinity	470	195	1,125	1,800	5,100	1,590
Tulare	2,515	6,230	2,850	7,850	31,590	5,560
Tuolumne	1,750	600	460	3,200	12,000	250
Ventura	505	835	930	5,120	22,250	3,545
Yolo		110	1,520	4,030		26,165
Yuba	300	1,200	275	3,750	18,000	3,000
Totals	\$130,330	\$523,985	\$142,270	\$922,770	\$2,659,085	\$463,145

SCHEDULE G—Continued.

Showing Kinds of Personal Property Assessed, and the Assessed Value, for 1902.

Counties.	Sewing Machines.		Furniture.	Steamers, Vessels, or Watercraft.	Electric Light Plants, Dy- namos, etc.	Fixtures of Stores, Saloons, and other Business Places.
	Number.	Value.	Value.	Value.	Value.	Value.
Alameda	34	\$30,000	\$1,300,000	\$278,000	\$250,000	\$100,000
Alpine	272	250	1,242			20
Amador	1,105	3,850				7,225
Butte	1,000	11,050	147,010		43,170	26,795
Calaveras		6,300	100,000		20,000	15,000
Colusa		9,150	54,225			12,440
Contra Costa	133	1,405	110,180	117,000	5,400	22,350
Del Norte	790	7,905	17,275	600	2,400	5,580
El Dorado	3,248	29,480	59,540	2,400	6,260	16,700
Fresno	298	3,305	177,340		51,180	42,870
Glenn	1,564	16,180	51,545			11,445
Humboldt	245	180,170	82,365		45,000	42,250
Inyo		2,450	21,775			3,150
Kern		8,000	130,000		42,000	35,000
Kings	504	4,087	55,580		15,000	21,115
Lake	375	3,478	46,725	6,665	475	7,685
Lassen	521	5,210	18,655		3,200	7,270
Los Angeles	8,786	66,363	2,273,010	43,105	662,170	507,085
Madera	400	3,730	25,095		16,000	8,440
Marin		1,830	147,180	121,150	31,700	3,485
Mariposa	300	3,000	12,000		4,000	12,000
Mendocino	1,526	15,560	125,295		18,000	3,500
Merced	574	5,380	62,135		16,020	17,895
Modoc	306	4,400	28,400		3,865	
Mono	100	1,250	14,475		9,000	2,865
Monterey		4,420	76,200		32,200	19,105
Napa		15,100	200,200	1,200	10,000	23,650
Nevada	616	8,840	139,250		1,710	22,860
Orange	2,265	16,990	156,850		15,330	21,930
Placer	1,103	13,265	96,805		19,400	31,200
Plumas	215	2,150	21,775		1,000	1,925
Riverside	1,398	9,560	141,970		4,845	23,440
Sacramento	1,650	16,500	380,000	1,300	65,000	130,000
San Benito	583	5,755	42,050			19,810
San Bernardino			126,700	3,500	166,300	23,500
San Diego	3,000	16,600	300,900	15,000	40,000	40,000
San Francisco		109,250	7,245,115	6,146,915	2,702,840	1,428,970
San Joaquin		15,929	320,960	29,090	9,000	42,090
San Luis Obispo	1,268	12,718	86,563	485	3,300	31,525
San Mateo		1,675	177,645	2,700	17,800	8,675
Santa Barbara		2,840	164,920			9,290
Santa Clara		51,680	756,155	575	23,850	58,650
Santa Cruz	871	7,830	142,190	710	11,950	29,455
Shasta	930	8,625	115,470			47,128
Sierra	76	960	18,980		1,400	1,625
Siskiyou	508	5,080	68,300		6,845	9,100
Solano		16,355	279,650	65,000	61,700	31,125
Sonoma	3,010	18,060	326,100		30,000	47,800
Stanislaus	833	7,885	93,800		23,000	22,880
Sutter	487	4,325	45,535	450	550	2,015
Tehama	806	10,080	97,690		4,940	35,245
Trinity	222	2,660	21,945		3,835	2,165
Tulare	842	8,215	97,400		34,700	20,570
Tuolumne	170	3,400	10,100		65,000	6,900
Ventura	883	6,625	76,470		8,300	30,612
Yolo	800	8,030	101,800	475		23,379
Yuba	242	2,700	73,000	650	940	27,000
Totals		\$667,715	\$17,161,340	\$6,919,435	\$4,610,575	\$3,205,784

SCHEDULE G—Continued.

Showing Kinds of Personal Property Assessed, and the Assessed Value, for 1902.

Counties.	Franchises Not Assessed by State Board of Equalization.	Railroad Rolling Stock Not Assessed by State Board of Equaliza- tion.	Harness, Robes, Saddles, etc.	Goods, Wares, and Merchandise.	Consigned Goods.
	Value.	Value.	Value.	Value.	Value.
Alameda	\$2,650,000	\$60,000	\$10,000	\$1,100,000	\$15,000
Alpine			1,143	2,030	
Amador					
Butte	2,500		19,780	405,115	730
Calaveras	2,000		8,000	99,225	
Colusa			15,260	127,870	
Contra Costa	95,125	13,000	7,890	234,595	
Del Norte	200	7,500	1,860	23,079	
El Dorado			7,625		
Fresno	91,850		20,845	398,590	7,370
Glenn	500		11,052	93,845	
Humboldt	5,525	12,845	22,470	503,825	
Inyo			8,935	70,695	
Kern			25,000	300,000	
Kings	18,405		11,570	164,790	1,380
Lake			9,060	58,680	
Lassen			10,990	74,800	
Los Angeles	1,418,155	110,850	72,526	4,268,365	22,420
Madera	2,400		12,305	50,965	500
Marin			2,265	67,200	
Mariposa			8,000	92,000	
Mendocino		10,000	20,715	275,885	
Merced	13,250	350	20,830	120,230	215
Modoc			13,415	127,298	
Mono		6,856	3,440	31,056	
Monterey		2,000	26,385	287,320	
Napa			15,460	318,500	
Nevada	550	18,300	6,025	240,000	
Orange	1,000	17,900	26,010	194,410	
Placer	2,450	5,100	14,640	160,500	
Plumas			5,815	68,770	
Riverside	22,000		15,175	210,850	
Sacramento	80,000	30,000	46,000	2,001,720	
San Benito			10,110	79,620	
San Bernardino			2,125	419,370	
San Diego	60,000	6,000	9,500	441,550	10,000
San Francisco	29,477,157	5,533,814	93,440	18,218,875	527,800
San Joaquin	295,184		34,972	522,684	
San Luis Obispo	4,120		27,995	166,885	
San Mateo	15,000	19,800	12,675	121,785	
Santa Barbara			11,280	315,410	
Santa Clara			67,105	1,195,160	
Santa Cruz	7,500		13,710	272,565	1,315
Shasta	15,490		17,039	295,010	
Sierra	2,000		1,470	42,520	
Siskiyou			21,230	192,100	
Solano	5,000		29,050	305,450	
Sonoma			23,840	632,500	500
Stanislaus		2,100	27,925	152,155	
Sutter			10,725	22,365	
Tehama			21,630	221,770	
Trinity	100		3,790	57,235	
Tulare			21,795	224,710	
Tuolumne			1,000	227,330	
Ventura	7,500	750	16,980	165,610	
Yolo			19,695	164,750	
Yuba	100		9,600	302,000	
Totals	\$34,295,061	\$5,857,159	\$999,167	\$36,948,617	\$587,230

SCHEDULE G—Continued.

*Showing Kinds of Personal Property Assessed, and the Assessed Value,
for 1902.*

Counties.	Pipe.		Presses.		
	Vitrified and Iron.	Gas and Water.	Printing.	Wine.	Hay.
	Value.	Value.	Value.	Value.	Value.
Alameda	\$82,000	\$2,950,000	\$20,000	\$2,500	\$1,000
Alpine					
Amador		1,737	3,450		400
Butte	2,300	22,975	1,780		2,575
Calaveras	5,000		4,000	100	1,000
Colusa					
Contra Costa			12,000	3,600	7,200
Del Norte		1,700	1,800		
El Dorado	4,220				
Fresno		133,430	5,100	1,120	1,750
Glenn		6,000	2,950		
Humboldt		15,940	7,595		350
Inyo			1,000		300
Kern					2,000
Kings	4,240		3,200		
Lake			2,050	390	
Lassen			1,150		
Los Angeles	8,210	321,695	124,395	270	2,250
Madera		10,720	1,250	50	165
Marin			2,950		
Mariposa		4,500	750		270
Mendocino	11,000		7,500		1,500
Merced			1,835		475
Modoc			1,500		225
Mono		1,575	700		110
Monterey			2,510	110	380
Napa			12,500	14,000	12,500
Nevada	40,150		3,500	15	260
Orange	4,455		5,510		1,040
Placer			3,150	75	420
Plumas	2,050		2,500		125
Riverside	3,120		2,850		1,365
Sacramento			27,000		
San Benito			3,100		
San Bernardino	400	8,750	9,300		
San Diego		150,000	15,000	350	1,000
San Francisco		6,484,295	267,840		
San Joaquin		74,060	14,000	900	1,400
San Luis Obispo	3,600	3,350	2,825		2,300
San Mateo	900,280	43,800	3,100		
Santa Barbara					
Santa Clara	2,625	8,330	7,500	3,600	
Santa Cruz		51,815	8,050	900	
Shasta			6,400	290	
Sierra			1,640		400
Siskiyou			4,000		430
Solano			10,450		
Sonoma	27,150		6,850	4,525	9,070
Stanislaus			3,900		150
Sutter			2,200		
Tehama			6,600	400	
Trinity	9,730		165	10	440
Tulare			10,170		
Tuolumne	7,600		600	50	200
Ventura		112,300	2,050		1,535
Yolo			4,700		1,250
Yuba	600		950	110	190
Totals	\$1,118,730	\$10,406,972	\$657,865	\$33,365	\$56,025

SCHEDULE G—Continued.

Showing Kinds of Personal Property Assessed, and the Assessed Value,
for 1902.

GRAIN ASSESSED IN STORAGE.

Counties.	Wheat.	Oats.	Barley.	Corn.
	<i>Value.</i>	<i>Value.</i>	<i>Value.</i>	<i>Value.</i>
Alameda	\$25,000	\$1,000	\$50,000	\$500
Alpine	490	40		
Amador				490
Butte	10,730		3,920	
Calaveras	500		150	
Colusa	56,170		27,340	
Contra Costa	415,805	5,250	115,480	
Del Norte				
El Dorado				
Fresno	3,205		620	
Glenn	63,500		2,550	
Humboldt		730	90	
Inyo	625	150		675
Kern	7,000		6,000	
Kings	840		2,200	80
Lake	2,350	105	780	25
Lassen	3,540	120	100	
Los Angeles	92,285	310	42,930	2,750
Madera	27,390		7,380	
Marin				
Mariposa				
Mendocino	1,500	340	775	
Merced	94,770	5,290	38,485	5,110
Modoc	490		1,295	
Mono		160		
Monterey	108,210	29,360	112,780	
Napa	2,225	2,250	1,250	2,560
Nevada			175	
Orange	5,125		6,375	
Placer	1,795		160	
Plumas	150	1,050		
Riverside	15,195	40		
Sacramento	45,500	500	4,200	2,600
San Benito	58,315	240	14,255	100
San Bernardino				
San Diego	3,500	2,500	4,500	
San Francisco	67,800	15,300	12,685	
San Joaquin	402,985		42,420	
San Luis Obispo	133,855	2,750	18,900	120
San Mateo	300	675	1,080	
Santa Barbara				
Santa Clara	3,040		7,100	
Santa Cruz				
Shasta	500	50	215	
Sierra			325	
Siskiyou	5,280	800	1,125	
Solano	53,620	150	16,675	140
Sonoma				
Stanislaus	191,790	1,305	10,835	80
Sutter	59,735		2,345	
Tehama	34,390	135	3,745	60
Trinity			145	
Tulare	138,920		8,665	385
Tuolumne				
Ventura	33,750		20,030	1,740
Yolo	53,125		8,560	
Yuba	47,825	80	4,750	800
Totals	\$2,273,120	\$71,680	\$603,390	\$18,215

SCHEDULE G—*Continued.*

Showing Kinds of Personal Property Assessed, and the Assessed Value, for 1902.

Counties.	Other Property.	Counties.	Other Property.
	<i>Value.</i>		<i>Value.</i>
Alameda.....	\$83,000	Plumas.....	\$845
Alpine.....	60	Riverside.....	211,110
Amador.....	4,730	Sacramento.....	224,160
Butte.....	63,890	San Benito.....	18,585
Calaveras.....	40,500	San Bernardino.....	8,585
Colusa.....		San Diego.....	36,400
Contra Costa.....	506,900	San Francisco.....	12,970,000
Del Norte.....	25,700	San Joaquin.....	201,130
El Dorado.....	1,230	San Luis Obispo.....	83,500
Fresno.....	85,825	San Mateo.....	93,700
Glenn.....		Santa Barbara.....	
Humboldt.....	97,000	Santa Clara.....	34,675
Inyo.....	12,990	Santa Cruz.....	113,485
Kern.....	1,164,030	Shasta.....	642,390
Kings.....	105,300	Sierra.....	1,050
Lake.....	400	Siskiyou.....	1,800
Lassen.....	2,555	Solano.....	23,315
Los Angeles.....	783,025	Sonoma.....	4,740
Madera.....	26,810	Stanislaus.....	
Marin.....	14,000	Sutter.....	15,750
Mariposa.....	1,100	Tehama.....	13,370
Mendocino.....	92,135	Trinity.....	10,230
Merced.....	15,000	Tulare.....	59,155
Modoc.....	15,700	Tuolumne.....	
Mono.....	27,880	Ventura.....	173,100
Monterey.....	16,820	Yolo.....	90,695
Napa.....	3,500	Yuba.....	22,085
Nevada.....	150,000		
Orange.....	100,200	Total.....	\$18,496,130
Placer.....	2,000		

This assessed value of personal property is on property not enumerated in schedule, and includes abstract books, maps and plats, assay outfits, beans, flour, salt, soda, beer, raisins, dried fruit, raisin trays, fruit and sweat boxes, potatoes, sugar (raw and refined), ice machines, creamery machinery, gas machines, linotypes, slot machines, oil-drilling rigs, well-casing, pumping plants, tubing, possessory interests, chutes and moorings, donkey engines, wharves, nursery stock, powder, leather, brick, ice, mill tailings, ore and bullion, incubators, tools, harvesters, ostriches, quicksilver, mustard, transits, photograph outfits, tanbark, railroad ties, hearses, national bank stock, etc.

SCHEDULE H.

Number of Acres Sown for Crop of 1902.

Counties.	Wheat.	Oats.	Barley.	Corn.	Hay.	Sugar Beets.
	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>
Alameda	27,250	2,000	45,000	500	40,000	4,500
Alpine	285	85			3,000	
Amador	1,230	2,830	3,100	400	1,265	
Butte*						
Calaveras	1,500	200	2,000	50	10,000	
Colusa	130,000	200	100,000	5,000	10,000	
Contra Costa	41,590	8,170	20,380	600	45,160	2,100
Del Norte		800	50	80	1,700	
El Dorado	1,200	1,550	2,500		8,600	
Fresno	119,640	75	65,320	490	16,800	
Humboldt*	125,000	200	25,000	500	10,000	
Glenn						
Inyo	4,200	900	1,000	3,000	5,200	
Kern	20,000	100	8,000	1,500	10,000	
Kings	48,000		10,000		3,500	
Lake	4,500	3,565	3,640	1,000	8,375	
Lassen	81,230	1,875	9,255	40	11,465	
Los Angeles	20,770	1,140	33,775	710	10,815	3,850
Madera	104,730		43,135		4,130	
Marin					13,240	
Mariposa	1,000	300	2,500	300	10,000	
Mendocino	14,895	11,270	7,430	330	23,570	
Merced	162,350	1,000	60,255	1,915	12,760	
Modoc	22,000	10,000	15,150		55,745	
Mono	5	20	10	5	10,000	
Monterey*						
Napa	2,160	3,740	2,950	3,960	59,200	
Nevada	200	150	100	30	9,600	
Orange	25,000		35,000	3,000	15,000	4,000
Placer	30,800	2,600	8,600		23,400	
Plumas	3,000	5,000	1,000		2,800	
Riverside	58,410	1,150	54,075		45	
Sacramento	113,000	90,000	11,000	1,000	74,000	
San Benito	13,230		23,640		9,000	3,300
San Bernardino*						
San Diego	20,000	7,500	10,000	150	40,000	
San Francisco						
San Joaquin	408,700	6,330	127,510	300	6,585	
San Luis Obispo	310,500	9,500	150,200	1,000	65,400	1,400
San Mateo	16,000	9,000	4,000	200	30,000	
Santa Barbara	31,950		36,280	940	19,900	6,430
Santa Clara	10,050	95	11,050	100	26,750	
Santa Cruz*						
Shasta	2,500	200	1,000	100	7,000	
Sierra	500	1,000	3,000		3,000	
Siskiyou*						
Solano	113,075	1,080	61,650		14,180	3,700
Sonoma	4,120	7,580	1,900	1,270	49,690	870
Stanislaus	263,035	700	52,155	50	11,440	
Sutter	37,320	7,760	11,515	4,795		
Tehama	19,460	1,625	24,370		32,680	
Trinity	500	10	50	50	13,000	
Tulare	258,830	560	54,955	2,165	8,360	
Tuolumne	4,700	380	4,400		9,140	
Ventura	19,385	4,590	38,960	5,380	33,600	18,000
Yolo	240,000		50,000		20,000	
Yuba	39,645	4,580	7,465	70	8,140	
Totals	2,977,445	211,405	1,244,305	40,980	927,235	48,150

* Assessor does not report.

Acreage in Rye—Madera 700 |

Merced	34,275
San Joaquin	17,450
Stanislaus	13,810

Acreage in Celery—Orange 2,600 |

in Beans—Ventura	49,976
in Flax—Solano	4,500

SCHEDULE H—Continued.

Acres of Grapevines Growing in Spring of 1902.

Counties.	Table.		Raisins.		Wine.	
	Bearing.	Non-Bearing.	Bearing.	Non-Bearing.	Bearing.	Non-Bearing.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Alameda	100				6,800	
Alpine						
Amador	73	2			15	6
Butte						
Calaveras	50	50	25	10	1,200	500
Colusa	20		300	25	40	
Contra Costa	740	200	65	10	1,050	800
Del Norte						
El Dorado	310	20	120	25	1,650	200
Fresno	841	372	42,740	4,107	26,120	4,476
Glenn						
Humboldt						
Inyo	20		50		50	
Kern	100		1,000			
Kings			6,500			
Lake	500				300	
Lassen						
Los Angeles	1,093		904		7,502	
Madera	350		1,000		960	
Marin					425	6
Mariposa	100		100		400	
Mendocino	835	850	35	15	475	890
Merced	500	150	900	350	300	100
Modoc						
Mono						
Monterey	16					
Napa					3,500	1,500
Nevada	210	20			300	
Orange					980	
Placer	960		205		400	
Plumas						
Riverside	18		1,558		60	
Sacramento	5,100		850		9,200	
San Benito	16				171	
San Bernardino			7,500	1,000	3,000	4,000
San Diego	200		4,500		375	
San Francisco						
San Joaquin	2,027	1,807			1,070	1,132
San Luis Obispo	1,725	200			850	250
San Mateo					200	
Santa Barbara						
Santa Clara	381	235			4,501	2,000
Santa Cruz	581				1,088	
Shasta	100		250		650	
Sierra						
Siskiyou						
Solano	360				930	
Sonoma	300	110			12,990	2,560
Stanislaus	51		195		210	
Sutter	19		344		27	
Tehama	310		312		2,815	
Trinity	5					
Tulare			4,000	500		
Tuolumne	330	200			1,600	250
Ventura	68		157		103	
Yolo			10,000		7,000	
Yuba	50		140		235	
Totals	18,458	4,216	83,750	6,042	99,539	18,670

SCHEDULE H—Continued.

Number of Fruit Trees Growing in Spring of 1902.

Counties.	Apple.		Apricot.		Cherry.	
	Bearing.	Non-Bearing.	Bearing.	Non-Bearing.	Bearing.	Non-Bearing.
Alameda	55,000	1,000	102,000	8,000	80,000	18,000
Alpine	1,020	285			40	
Amador	4,672	967	1,452	38	530	150
Butte	7,937		10,729		9,620	
Calaveras	6,000	4,000	2,000	1,000	500	200
Colusa	3,500	1,200	25,000	4,500	650	400
Contra Costa	10,200	1,175	49,100	4,300	9,700	1,000
Del Norte	7,800	350			500	55
El Dorado	29,160	5,320	1,800	800	3,800	920
Fresno	17,530	6,824	55,420	37,000	1,085	420
Glenn	8,000		15,000		500	
Humboldt*						
Inyo	18,600		612		680	
Kern	8,000	2,000	20,000	500	1,000	650
Kings	2,000		20,785			
Lake	25,965		1,760		825	
Lassen	43,761		372		768	
Los Angeles	26,115	29,980	127,070	30,043	2,216	565
Madera	1,000		5,825		10	
Marin	18,950	915	6,300	400	425	60
Mariposa	35,000		700		500	
Mendocino	84,127	17,186	325	193	336	209
Merced	3,520	1,200	14,000	5,000	920	450
Modoc	14,196		600		750	
Mono	200	100				
Monterey	295,210		7,900		426	
Napa	48,350	15,476	1,750	13,120	14,250	11,650
Nevada	38,500	200	4,230	160	2,300	25
Orange	8,820	6,310	96,305	58,227		
Placer	21,600	6,800	12,800	5,360	13,700	8,000
Plumas	3,825	1,600			100	
Riverside	3,039	20,212	49,843	3,656	804	4
Sacramento	5,800	1,300	23,000	35,000	4,900	9,000
San Benito	10,500		17,000	1,500	2,500	560
San Bernardino	10,000	2,000	50,000	3,000	8,500	2,000
San Diego	45,000	15,800	42,500	23,400	40,000	1,800
San Francisco						
San Joaquin	10,300	1,650	87,075	1,975	20,700	4,500
San Luis Obispo	68,500	12,000	58,200	7,000	7,500	3,200
San Mateo	18,000	7,200	10,400	800	1,350	
Santa Barbara	15,460	8,920	9,245	2,710		
Santa Clara	17,015	3,000	532,100	11,500	128,700	22,900
Santa Cruz	280,710	288,963	36,702	30,102	17,779	4,483
Shasta	15,000		500		500	
Sierra	7,100				200	
Siskiyou†						
Solano	2,125		310,560		38,780	
Sonoma	192,950		87,450		16,270	4,120
Stanislaus	4,320	80	12,960	480		
Sutter	4,542		17,265		10,670	
Tehama	17,605	1,440	62,420	4,815	3,855	1,435
Trinity	4,500	3,000	50		310	200
Tulare	16,910	13,170	52,000	5,000	530	200
Tuolumne	3,700	5,000	2,300	565	3,100	370
Ventura	28,872	5,623	256,760	18,407	850	175
Yolo	350		85,000		8,000	
Yuba	7,605	760	17,400	4,380	94,000	2,290
Totals	2,638,461	493,006	2,404,565	322,931	555,929	91,791

* Very few.

† No report.

SCHEDULE H—Continued.

Number of Fruit Trees Growing in Spring of 1902.

Counties.	Fig.		Olive.		Peach.	
	Bearing.	Non-Bearing.	Bearing.	Non-Bearing.	Bearing.	Non-Bearing.
Alameda	150	-----	4,300	1,000	85,000	1,200
Alpine	-----	-----	-----	-----	-----	-----
Amador	486	28	52	31	14,076	286
Butte	10,175	-----	82,161	17,203	126,720	-----
Calaveras	400	200	6,000	1,000	4,000	1,000
Colusa	2,150	2,000	1,800	1,200	3,150	2,800
Contra Costa	2,800	585	19,150	5,500	29,195	3,240
Del Norte	-----	-----	-----	-----	120	485
El Dorado	1,420	360	1,500	300	114,270	18,460
Fresno	35,460	4,700	19,380	38,700	390,780	231,426
Glenn	6,000	-----	2,000	-----	8,000	-----
Humboldt*	-----	-----	-----	-----	-----	-----
Inyo	50	-----	-----	-----	7,000	-----
Kern	1,000	-----	4,700	-----	35,000	-----
Kings	-----	-----	-----	-----	206,980	-----
Lake	1,740	-----	2,740	-----	15,220	-----
Lassen	-----	-----	-----	-----	813	-----
Los Angeles	2,976	1,678	97,913	128,095	104,260	28,137
Madera	6,420	-----	1,160	-----	24,840	-----
Marin	210	40	-----	-----	4,500	350
Mariposa	1,000	-----	9,000	-----	6,000	-----
Mendocino	68	19	21	275	17,344	4,219
Merced	10,800	2,500	27,000	2,000	100,000	30,000
Modoc	-----	-----	-----	-----	500	-----
Mono	-----	-----	-----	-----	-----	-----
Monterey	-----	-----	-----	-----	2,010	-----
Napa	1,650	350	32,600	20,600	92,400	21,450
Nevada	800	-----	400	75	9,600	1,000
Orange	2,700	-----	22,705	7,500	17,040	26,900
Placer	4,090	3,000	29,640	19,300	710,900	570,400
Plumas	-----	-----	-----	-----	650	200
Riverside	1,940	39	28,573	39,015	39,025	1,061
Sacramento	1,300	2,700	11,500	5,700	125,000	43,000
San Benito	200	-----	300	-----	16,000	2,000
San Bernardino	2,000	1,000	18,000	13,000	70,000	5,000
San Diego	12,500	10,200	50,000	65,000	50,000	60,000
San Francisco	-----	-----	-----	-----	-----	-----
San Joaquin	4,400	900	18,350	3,300	137,800	17,500
San Luis Obispo	2,250	1,100	2,800	900	62,600	19,500
San Mateo	100	-----	7,000	500	1,200	-----
Santa Barbara	-----	-----	20,825	14,320	5,120	2,290
Santa Clara	1,670	540	8,900	5,950	498,030	37,800
Santa Cruz	315	133	1,745	2,579	21,106	1,497
Shasta	1,000	-----	12,000	-----	60,000	-----
Sierra	-----	-----	-----	-----	400	-----
Siskiyou†	-----	-----	-----	-----	-----	-----
Solano	5,565	-----	3,470	-----	319,735	-----
Sonoma	3,170	1,910	49,780	53,840	212,500	12,160
Stanislaus	4,900	-----	11,000	1,216	12,440	10,500
Sutter	4,615	-----	2,445	-----	138,040	-----
Tehama	9,985	1,015	17,210	105,995	604,850	100,435
Trinity	7	-----	-----	-----	900	575
Tulare	5,913	1,567	4,186	3,745	354,654	75,628
Tuolumne	940	240	20	30	9,100	2,980
Ventura	2,394	360	88,408	17,970	38,500	-----
Yolo	4,200	-----	16,000	-----	95,000	-----
Yuba	51,000	1,783	76,000	1,900	17,500	3,126
Totals	212,909	38,947	812,734	577,739	5,020,369	1,367,105

* Very few.

† No report.

SCHEDULE H—Continued.

Number of Fruit Trees Growing in Spring of 1902.

Counties.	Pear.		Prune (French).		Prune (other kinds).	
	Bearing.	Non-Bearing.	Bearing.	Non-Bearing.	Bearing.	Non-Bearing.
Alameda	65,000	5,200	145,000	23,000	2,000	500
Alpine	100	40			200	
Amador	6,108	53	10,170	1,460	124	36
Butte	19,125		74,622		7,325	
Calaveras	500	100	200	200	800	100
Colusa	21,000	9,500	60,000	3,000	2,000	
Contra Costa	64,100	17,300	31,320	1,300	8,150	1,030
Del Norte	500	200	308		900	
El Dorado	65,000	38,000	27,000	1,200	86,000	2,200
Fresno	82,370	35,300	24,500	5,370	9,476	4,392
Glenn	4,000		25,000		1,000	
Humboldt *						
Inyo	2,000		2,000		2,400	
Kern	5,000		75,000		13,000	
Kings	42,500		92,540		12,360	
Lake	22,830		60,000		500	
Lassen	1,307		862		945	
Los Angeles	25,671	1,163	40,980	15,720	15,510	6,517
Madera	2,140		3,260			
Marin					2,100	750
Mariposa	3,000		1,500		300	
Mendocino	9,009	300	48,115	29,640	2,017	1,087
Merced	8,700	2,000	25,000	4,000	2,150	750
Modoc		780				
Mono	30	10				
Monterey					21,210	
Napa	48,320	15,100	99,460	60,500	30,600	2,680
Nevada	26,500	700	1,800			
Orange	3,190	1,600	21,050	10,385		
Placer	100,400	30,480	8,500	6,000	73,200	56,400
Plumas	700	600				
Riverside	13,166	768	43,807	700		
Sacramento	68,000	58,000	25,050	51,000	32,000	80,000
San Benito	12,000	4,000	90,000	6,000	7,000	
San Bernardino	3,000	1,500	15,000	5,000		
San Diego	21,500	8,000	45,000	60,000		
San Francisco						
San Joaquin	22,250	1,550	33,400	5,200	5,800	400
San Luis Obispo	35,600	9,500	158,200	32,100	42,500	12,000
San Mateo	4,000		31,000			
Santa Barbara	1,410	580	1,585	460	2,175	435
Santa Clara	121,100	17,900	3,567,140	367,000	48,010	37,750
Santa Cruz	21,203	3,505	153,710	29,120	18,237	7,440
Shasta	10,000		70,000		6,500	
Sierra						
Siskiyou †						
Solano	215,350		265,790		109,340	
Sonoma	66,320	29,280	398,710	192,120	42,820	7,470
Stanislaus	6,880		15,900	2,700		
Sutter	30,590					
Tehama	44,980	13,595	82,105	7,375	16,450	3,740
Trinity	500	200	550	505	250	190
Tulare	21,725	2,350	352,912	52,746	54,776	2,674
Tuolumne	2,300	310			280	175
Ventura	5,800		78,350			
Yolo	50,000				95,000	
Yuba	71,000	2,976	17,900	3,943	3,400	425
Totals	1,477,774	312,440	6,324,296	977,744	778,805	229,141

* Very few.

† No report.

SCHEDULE H—Continued.

Number of Fruit Trees Growing in Spring of 1902.

Counties.	Lemon.		Orange.		Almond.		Walnut.	
	Bearing.	Non-Bearing.	Bearing.	Non-Bearing.	Bearing.	Non-Bearing.	Bearing.	Non-Bearing.
Alameda	1,000	200	2,000	400	75,000	5,000	1,500	800
Alpine								
Amador	10	4	276	38	2,560	426	85	21
Butte	1,300		217,527	10,150	25,430		965	
Calaveras	50	50	300	400	1,000	500	400	300
Colusa	200	300	2,000	850	14,000	7,000	700	500
Contra Costa	320	140	1,060	410	140,500	57,810	2,500	2,080
Del Norte								
El Dorado	150		1,275	880	2,000	520	500	180
Fresno	3,700	7,960	23,860	19,384	3,470	2,185	2,770	740
Glenn	1,500	1,000	2,500	2,000	8,000		500	
Humboldt								
Inyo					40		400	
Kern	300		4,500		1,200		100	
Kings								
Lake			50		7,825		875	
Lassen					40		185	
Los Angeles*	180,417	26,462	695,849	319,425	54,207	61,124	97,025	2,100
Madera	50		198		848		45	
Marin			325	65	140	35	55	35
Mariposa	300		600		600		400	
Mendocino					912	250	125	90
Merced	1,500	300	7,500	4,000	15,000	5,000	1,000	200
Modoc								
Mono								
Monterey					600			
Napa	320	105	3,170	125	42,670	12,500	9,360	1,240
Nevada	200	50	400	75	550	50	400	100
Orange	29,736	51,372	388,460	117,960			108,420	74,560
Placer	805	640	18,900	15,300	4,500	2,800	1,100	800
Plumas								
Riverside	377,092	307,750	884,200	301,818	15,562	112	928	68
Sacramento	1,500	800	22,050	20,000	32,000	30,050	2,100	1,700
San Benito†			100		8,500		1,000	1,000
San Bernardino	150,000	30,000	800,000	590,000	1,000	500	3,500	500
San Diego*	200,000	180,000	80,000	35,000	6,000	9,000	5,000	10,000
San Francisco								
San Joaquin	250		2,200	1,175	106,100	4,900	550	100
San Luis Obispo	12,800	7,000	3,200	1,350	4,500	900	20,300	9,000
San Mateo	110		118		560		500	
Santa Barbara	74,850	73,960	1,320	655	1,680		15,840	14,955
Santa Clara†	375	750	950	710	14,850	5,020	8,945	2,150
Santa Cruz	95	40	125	95	410	67	1,625	4,390
Shasta	250		1,000		2,000		250	
Sierra							15	
Siskiyou								
Solano	2,200		3,250		107,495		3,755	
Sonoma	630	340	7,870	2,890	6,240	3,790	3,220	2,010
Stanislaus	600	400	7,300	1,800	2,300	1,700	200	100
Sutter								
Tehama	215	255	2,140	5,535	60,250	715	4,160	1,235
Trinity					5		75	25
Tulare	13,550	7,615	245,782	315,824	3,428		617	
Tuolumne	100	100	350	130	300	48	840	825
Ventura	72,238	37,120	64,900	32,450	21,780		62,830	5,660
Yolo	1,500		12,000		410,000			
Yuba	3,700	1,920	32,800	28,480	6,400	620	2,005	435
Totals	1,133,913	736,633	3,543,405	1,829,374	1,212,452	212,622	367,705	137,899

* Grapefruit—

Los Angeles..... 2,710
San Diego..... 20,000

† Nectarines—

San Benito..... 250
Santa Clara..... 1,145

SCHEDULE I.

Assessment of Telegraph and Telephone Lines, 1902.

Counties.	Western Union.	Pacific Postal.	Telephone.
Alameda	\$32,270	\$17,763	\$478,958
Alpine .....	.....	.....	.....
Amador	2,000	.....	5,968
Butte	4,655	3,085	17,725
Calaveras	620	.....	4,795
Colusa	3,100	3,100	10,032
Contra Costa	15,000	1,600	74,840
Del Norte .....	.....	.....	1,250
El Dorado	390	.....	7,505
Fresno	6,150	2,453	64,020
Glenn	2,697	2,233	4,060
Humboldt	4,000	.....	51,320
Inyo	4,000	.....	.....
Kern	24,040	19,950	91,295
Kings	900	.....	18,405
Lake .....	.....	.....	1,745
Lassen .....	.....	.....	250
Los Angeles	29,810	12,560	355,385
Madera	4,060	1,850	10,890
Marin	5,000	.....	19,050
Mariposa	750	.....	2,860
Mendocino	8,160	.....	15,465
Merced	6,695	5,530	18,700
Modoc .....	.....	.....	.....
Mono .....	.....	.....	770
Monterey	9,110	.....	28,900
Napa	3,760	.....	15,500
Nevada	6,170	.....	24,160
Orange	1,770	2,925	13,580
Placer	17,090	940	15,556
Plumas	1,050	.....	2,425
Riverside	11,340	325	29,655
Sacramento	19,600	2,250	102,670
San Benito	540	.....	10,760
San Bernardino	14,565	18,800	23,070
San Diego	13,315	3,375	41,140
San Francisco	55,339	12,540	2,939,470
San Joaquin	12,144	5,947	67,200
San Luis Obispo	5,773	.....	15,280
San Mateo	7,500	.....	31,000
Santa Barbara	4,500	.....	26,000
Santa Clara .....	.....	.....	59,380
Santa Cruz	1,940	.....	30,585
Shasta	8,860	6,392	22,698
Sierra	400	.....	3,170
Siskiyou	10,325	5,590	52,640
Solano	9,850	3,820	29,015
Sonoma	6,000	.....	34,000
Stanislaus	4,300	1,775	18,855
Sutter	800	400	6,865
Tehama	6,475	4,175	10,605
Trinity	50	.....	2,490
Tulare	9,025	5,305	36,805
Tuolumne	550	.....	7,470
Ventura	5,160	.....	15,012
Yolo	12,575	3,675	31,832
Yuba	2,340	600	13,235
Totals	\$416,513	\$148,958	\$5,026,311

SCHEDULE J.

*Showing the Total Assessed Value of Property and Rates of State Taxation
from 1850 to 1902.*

Year.	Total Assessed Value of Prop- erty in California.	Value of Per- sonal Property.	Per cent of Per- sonal Property to Real Estate and Personal Property.	State Rate of Taxation.
1850	\$57,670,689	\$13,968,797	24.22	.50
1851	49,231,052	20,935,116	42.52	.65
1852	64,579,375	24,213,395	37.49	.65
1853	95,335,646	33,674,000	35.32	.60
1854	111,191,630	39,040,428	35.11	.60
1855	103,887,193	34,858,319	33.56	.60
1856	115,007,440	40,942,699	35.60	.70
1857	126,059,461	59,149,630	46.92	.70
1858	125,955,877	54,185,728	43.01	.60
1859	131,060,279	56,580,344	43.17	.60
1860	148,193,540	68,369,383	46.06	.60
1861	147,811,617	73,350,591	49.62	.60
1862	160,369,071	74,014,666	46.15	.77
1863	174,104,955	80,496,645	46.23	.92
1864	179,164,730	78,117,375	43.60	1.25
1865	183,534,312	79,782,436	43.47	1.15
1866	200,368,826	92,490,635	46.15	1.13
1867	212,205,339	100,105,600	47.17	1.13
1868	237,483,175	105,112,083	44.26	1.00
1869	260,563,879	104,723,592	40.19	.97
1870	277,538,134	108,001,588	38.90	.865
1871	267,868,126	86,174,230	32.17	.865
1872	637,232,823	219,942,323	30.40	.50
1873	528,747,043	118,425,520	22.20	.50
1874	611,495,197	210,779,127	34.46	.649
1875	618,083,315	199,243,292	32.07	.605
1876	595,073,177	140,431,866	25.27	.735
1877	586,953,022	128,780,824	21.77	.63
1878	584,578,036	118,304,451	20.23	.55
1879	549,220,968	112,325,850	20.45	.625
1880	666,399,985	174,514,906	26.18	.64
1881	659,835,762	160,058,309	24.24	.655
1882	608,642,036	134,048,419	22.02	.596
1883	765,729,430	167,338,644	21.85	.497
1884	821,078,767	166,394,997	20.26	.452
1885	859,512,384	172,760,681	27.90	.544
1886	816,446,700	151,937,132	24.64	.56
1887	756,337,008	164,444,909	17.20	.608
1888	1,108,044,877	172,768,272	15.60	.504
1889	1,115,014,022	170,981,078	16.00	.722
1890	1,099,772,904	168,960,150	16.00	.580
1891	1,241,231,105	189,843,998	15.29	.446
1892	1,275,832,510	186,900,252	14.64	.434
1893	1,211,572,074	169,763,846	14.01	.576
1894	1,204,976,952	163,104,050	13.54	.493
1895	1,132,712,674	161,790,103	14.28	.685
1896	1,263,771,936	177,352,419	14.03	.429
1897	1,088,736,160	161,453,052	14.85	.51
1898	1,129,473,765	157,155,181	13.92	.488
1899	1,194,677,895	215,065,438	18.02	.601
1900	1,218,228,075	228,229,874	18.72	.498
1901	1,241,705,803	235,464,341	19.75	.48
1902	1,289,676,062	240,042,076	19.60	.382

REPORT

OF THE

California State Board of Pharmacy.

MARCH 15, 1901, TO MAY 5, 1902.



SACRAMENTO:

A. J. JOHNSTON, : : : : : SUPERINTENDENT STATE PRINTING.

1902.

ANNUAL REPORT

OF THE

CALIFORNIA STATE BOARD OF PHARMACY.

SAN FRANCISCO, May 5, 1902.

To His Excellency HENRY T. GAGE, Governor of California:

SIR: Herewith is submitted the first Annual Report of the California State Board of Pharmacy, under the law approved March 15, 1901.

Eight meetings were held between March 15, 1901, and May 5, 1902, of which seven were regular meetings and one special, as follows:

June 11, 1901, at San Francisco.

July 9, 1901, at Los Angeles.

July 16, 1901, at San Francisco.

October 7, 1901, at San Francisco (special).

October 8, 1901, at San Francisco.

January 14, 1902, at San Francisco.

April 8, 1902, at Los Angeles.

April 15, 1902, at San Francisco.

FINANCIAL REPORT.

RECEIPTS		\$5,990 60
DISBURSEMENTS—		
Per diem and traveling expenses:		
F. D. Owen.....	\$430 00	
E. A. Baer.....	468 60	
H. J. Finger.....	945 20	
C. H. Rowley.....	935 60	
J. J. Crowley.....	430 60	
W. M. Searby.....	205 00	
J. Calvert.....	415 00	
		\$3,830 00
Legal expenses prosecutions, witness fees, etc.	\$228 50	
Printing, stationery, office supplies, and engraving.....	268 10	
Stamped envelopes and postage.....	112 64	
Express and telephoning.....	17 60	
Assistant clerical work.....	66 50	
Rent and janitor.....	55 50	
Fees returned (certificates not allowed), etc.	204 00	
Merchandise and apparatus for examination.....	62 80	
Furniture, safe, desk, and seal.....	143 75	
Secretary's salary.....	592 83	
Secretary, further allowance.....	64 00	
Advertising.....	23 40	
		1,839 62
CASH ON HAND		320 98
		5,990 60

Professor Wm. M. Searby was elected President and John Calvert, Secretary, of the Board.

The following is a list of the members of the Board: W. M. Searby, H. J. Finger, C. H. Rowley, J. J. Crowley, F. D. Owen, E. A. Baer, and J. Calvert.

The registrations for the period covered by this report are:

Licentiates without examination (on diplomas and credentials), and by examination	391
Assistants by examination, on credentials, and on licentiate examination ..	22
Assistants under Section 5 of the law (five years' experience)	235
Total registrations	648

The most remarkable feature of the year's work is the extraordinary number of persons who had been engaged in pharmacies over five years, many of whom had never studied the theoretical part of their profession and took advantage of the section of the law which gave them the privilege of registering as Assistants on payment of one dollar. It is to be hoped that such persons will endeavor to take advantage of the numerous facilities which now exist for obtaining a thorough pharmaceutical education. Unfortunately, the framers of the law omitted the important matter of preliminary education for the above class of Assistants, and it is to be feared that the greater part of them will never rise beyond their present status.

There are at present 1,470 Registered Pharmacists and 380 Registered Assistants. These are persons who have paid their re-registration fees up to May 5, 1903. All others have been omitted, as the law provides that every Registered Pharmacist who desires to continue the practice of his profession in this State shall annually, on such date as the Board of Pharmacy may determine, pay to the Secretary of the Board a registration fee, for which he shall receive a renewal of his registration. The same provision is made regarding Assistants. Consequently, in the above enumeration, all who have not paid the renewal fees are to be considered as unregistered.

The time for the payment of dues was, by a resolution, extended to July 5th of each year.

Soon after the organization of the Board, it was considered desirable to publish a circular of information, by means of which numerous inquiries could be answered. It gives the dates of regular meetings—second Tuesdays of January, April, July, and October. Examination or registration fees—\$5 for Licentiates and \$2 for Assistants. Time required for the examinations, about four days. Educational qualifications—candidates must present grammar school certificates, or equivalent credentials, otherwise they will be examined in reading, writing, spelling, arithmetic, geography, and composition. The pharmaceutical examination comprises chemistry, toxicology, pharmacy,

materia medica, and identification of drugs, chemicals, and preparations; reading and translating prescriptions; weights and measures (including metric); specific gravity and thermometry. Candidates for registration as Licentiates must furnish proof that they have had four years' experience; otherwise their applications will not be received.

The Board decided to refuse registration on certificates issued by other Boards of Pharmacy or on diplomas issued by Colleges of Pharmacy, and the wisdom of this ruling has been exemplified by experience, as we have rejected (the examinations having proved them to be incompetent) a considerable number of candidates who held both diplomas and board certificates.

The fee for re-registration of Licentiates was fixed at \$2, and of Assistants at \$1, for the year ending May 5, 1903.

With regard to the return or retention of fees for registration, the Board passed the following resolution on the 8th of October, 1901:

That fees for applications be retained whether application for registration be granted or denied; *provided*, that if an application for registration shall not have been acted upon by the Board, the Secretary is authorized to return the fee, if applicant demand the same. If application shall have been acted upon by the Board, no fee shall be returned.

Numerous convictions were obtained in Los Angeles against persons who violated the Pharmacy Law.

Two grocers were arrested in San Francisco for selling wood alcohol illegally. The cases were dismissed in the Police Court, on the ground that the parties were ignorant of the poison law.

At Long Beach, a druggist who was conducting a pharmacy in violation of law, was prosecuted. The defendant was fined. There was a similar case at San Mateo, where an unregistered clerk was in charge of a pharmacy, and a fine was inflicted.

At the request of a committee of this Board, the chiefs of police of San Francisco, Sacramento, Fresno, San José, and Los Angeles furnished the Board with lists of Pharmacists and Assistants in the respective cities.

Herewith is furnished a list of Registered Pharmacists and Registered Assistants.

Respectfully submitted.

H. J. FINGER,
President.

E. A. BAER.
CHAS. H. ROWLEY.
FRANK D. OWEN.
J. J. CROWLY.
JOHN CALVERT,
Secretary.

PHARMACISTS AND ASSISTANT PHARMACISTS.

(Registered to May 5, 1903.)

Abbreviations: P., Pharmacist; A., Assistant.

Abbey, C. C.	P	Baker, O. D.	P	Bertholf, C. F.	P
Abraham, C. J.	P	Baker, J. B.	P	Besby, J. A. W.	A
Abercrombie, L. L.	P	Baker, F. G.	A	Besthorn, H. E. D.	P
Ackerman, F. S.	P	Baker, R.	P	Billings, R. F.	P
Adair, W. H.	P	Bahlmann, F. A. L.	P	Billings, R. S.	A
Adams, A. L.	P	Bailey, C. C.	A	Binder, F.	P
Adams, H. A.	A	Baldrige, C. W.	P	Birch, J. W.	A
Aguirre, L. M.	P	Baldrige, W. H.	P	Birch, M. E.	A
Aitken, R. B.	P	Baldwin, E. H.	A	Birch, F. C.	A
Aitken, L. S.	P	Baldwin, E. L.	A	Bird, H.	A
Allison, M. D.	P	Banks, W. C.	P	Blackman, H. J.	P
Alford, C. C.	A	Barnfield, T. H.	A	Black, C. A.	P
Allen, G. S.	A	Barber, D. L.	A	Blackburn, F. J.	P
Akey, W. B.	A	Barber, R. D.	P	Blackburn, H. L.	P
Allee, L. T.	A	Barter, A. H.	P	Blackburn, C. W.	A
Akey, J. V.	P	Barrington, C. L.	P	Blair, J. D.	P
Altar, G. C.	A	Barritt, P. W.	P	Blake, T. F.	P
Alford, W. B.	P	Baxley, G. W.	P	Blaisdell, D. M.	A
Allen, F. W.	A	Battelle, E. L.	P	Blaisdell, W.	P
Allen, Mrs. N. S.	P	Baumgartner, J.	P	Blankinship, F.	P
Allen, G. S.	P	Baumgarten, W.	P	Blonse, R. H.	P
Allen, C.	P	Baum, G.	P	Booth, F. G.	P
Anderson, J. M.	P	Bayly, C. A. Jr.	P	Bork, A. W.	A
Anderson, C.	P	Baxter, C. V.	P	Bogel, E. J.	P
Anderson, J. R.	P	Barrett, M. DeL.	P	Bodenmann, J. U.	P
Angell, F. A.	P	Basham, J. A.	P	Bodkin, T. B.	P
Angell, H. V.	P	Barnum, W. L. Jr.	P	Bocca, W. A.	P
Apel, F. E.	P	Barton, S. F.	A	Bodle, F. S.	P
Arnold, F. W.	A	Beazley, G. T.	P	Boll, C. J.	A
Artigues, J. E.	P	Bean, C. E.	P	Bohmansson, R. H.	P
Archer, J.	P	Bean, G. A.	A	Bohn, C. H.	P
Armstrong, C. W.	P	Bear, B. L.	P	Bowen, D. H.	P
Armstrong, N. A.	A	Beck, H. M.	P	Boscher, E. H.	P
Armstrong, M.	P	Beck, G. W.	P	Boulton, E. A.	P
Armour, H. W.	P	Beck, I.	P	Booth, A. R.	P
Armour, E. E.	P	Beaman, F. S.	A	Booth, D. M.	A
Armour, C. L.	P	Beckwith, J.	P	Bologna, V.	P
Armand, E. C.	P	Becker, J. M.	P	Borthwick, R. W.	P
Armistead, J. H.	P	Becker, F. C.	P	Boswell, F. M.	P
Argenti, J. J. B.	P	Beckett, F. A.	P	Bothwell, S. F.	P
Arnheim, J. S.	P	Bedford, A. D.	P	Boyken, J. W.	P
Ashim, B. J.	P	Beauchamp, H. H.	P	Boyd, L.	P
Atwood, G. E.	A	Bearcroft, J. C.	P	Boyson, J. H.	P
Attwood, G. C.	A	Beall, L. M.	P	Bovard, P. S.	A
Atkinson, F. J.	P	Bellan, M. J.	P	Bowerman, K. B.	P
Auerbach, M.	P	Bellan, J. H.	A	Bowman, W. J.	P
Austin, H. W.	A	Belden, B. C.	P	Bowman, R. H.	P
Averill, M. B.	P	Bell, R. E.	P	Bowman, J. P.	P
Avery, C. W.	P	Bennett, T. E.	P	Bowman, S. L.	P
Ayres, W. W.	P	Bennett, L. M.	P	Boydston, W. H.	P
Baer, E. A.	P	Bennetts, R. J.	A	Brabrook, W. A.	P
Baer, F. V.	P	Benzinger, R.	P	Braddock, O. L.	P
Baer, C. E.	P	Berg, W. M.	P	Bradley, J. W.	P
Bacmeister, F. C.	A	Berger, C. G.	P	Bramhall, W. M.	P
Baker, E. H.	P	Bertrand, D. M.	P	Brannagan, A. J.	A
		Bernheim, M. R.	P	Bransby, J. R.	P

PHARMACISTS AND ASSISTANT PHARMACISTS—Continued.

Brayton, H. W. Jr.	A	Carlson, C.	A	Conway, J. A.	A
Brehler, O. A.	P	Carter, F. M.	P	Corbin, L. E.	P
Bristol, H. R.	P	Casner, E. R.	P	Coster, A. J.	P
Bridgman, R. W.	A	Cartwright, S. W.	P	Cover, C. A.	A
Brink, C. M.	P	Casselman, J. M.	P	Costello, N. J.	A
Bridgewater, E.	P	Case, E. A.	P	Cousins, H. R.	P
Briggs, W. D.	P	Catlett, B. F.	P	Cozens, T. W.	P
Briggs, W. H.	P	Castle, E. S.	A	Cozens, C. B.	P
Briggs, D. D.	P	Cauch, J. R.	P	Cone, J. E.	P
Brazelton, W. B.	P	Cavagnaro, A. A.	P	Cox, L. H.	P
Brooks, H. C.	P	Cates, W. E.	P	Cox, H. C.	A
Brooks, W. A.	A	Cerf, J. L.	P	Crew, H. W.	P
Brooks, W. S.	P	Chambers, G. H.	P	Crews, B. F.	P
Brow, F. E.	A	Chandler, H. F.	P	Crackbon, L. S.	P
Bronson, B. O.	P	Chandler, A. B.	A	Craker, R. J.	A
Brouwer, A.	P	Chaigneau, K. R.	P	Crane, W. P.	A
Brown, T. W. Jr.	P	Chard, G. R.	P	Crane, W. S.	A
Brown, M. W.	P	Charette, E. H.	A	Crane, C. W.	A
Brown, S. M.	A	Chase, C. A.	P	Crane, J. T.	A
Brown, J. H.	P	Chase, L. B.	A	Cravath, H. A.	P
Brown, T. V.	P	Chesnut, C. S.	P	Criley, W. M.	A
Brown, B.	A	Cherington, W. S.	P	Cross, W. S.	P
Brown, W. C.	A	Cherry, E. M.	P	Cross, K. H.	A
Brownridge, P. F.	P	Chippis, W. C.	P	Cross, H. H.	P
Browning, W. P.	P	Chilson, H. G.	A	Crowly, J. J.	P
Brownlee, W. S.	P	Christopher, J. F.	P	Crowley, T. J.	P
Bryan, W. J.	P	Chubb, M. P.	P	Crum, E. L.	P
Bucher, C. C.	A	Churchill, J.	P	Cummins, J. W.	P
Buckley, G. S.	P	Churchill, J. P.	P	Culver, L. A.	A
Buker, H. O.	P	Churchill, F. C.	P	Cunnane, J. B.	P
Burbeck, I.	A	Clapp, C. F.	P	Cunnane, A. N.	A
Burns, M. W.	P	Clapp, A. B.	P	Curless, G. W.	P
Butler, P. H.	P	Clapp, P. S.	P	Cutler, G. A.	P
Butler, H. M.	A	Clapsaddle, P. A.	A	Cutler, F. D.	A
Butler, J. L.	A	Clark, S. H.	P	Cutter, E. A.	P
Butler, J.	P	Clark, A. C.	P	Curtis, N. B.	P
Butler, W. L.	P	Clark, H. L.	P	Curtis, F. D.	A
Butler, W. H.	P	Clark, R. R.	P		
Bush, I. C.	P	Clarke, F.	A	Daggett, H.	P
Burns, G. A.	A	Clayes, W. I.	P	Dane, O. T.	A
Burbeck, H. A.	P	Clayes, S. R.	P	Darrough, C. H.	P
Burnett, G. G.	P	Claypool, J. W.	A	Davis, T. H.	P
Burnett, G. W.	P	Clement, G. C.	P	Davis, T. F.	A
Burnett, R. O.	A	Clifford, J.	P	Davis, M.	P
Burnham, F. P.	P	Clinton, C. A.	P	Davis, W. J.	P
Burnham, J. H.	P	Clough, F.	P	Davis, H. S.	P
Bussenius, A. G.	P	Clute, W. G.	P	Davis, J. W.	P
Butsch, E. E.	P	Coady, F. W.	P	Davis, R. V.	A
Burton, W. D.	P	Cody, N. L. A.	P	Davison, J. G.	P
Byler, C. M.	P	Cockburn, E. A.	P	Dawson, W.	P
Bussing, J. O.	A	Coffin, R. W.	P	Dawson, J. H.	P
Buswell, H. T.	A	Cochran, A. W.	P	Dawson, R.	A
Burque, J. G.	P	Coffee, E. H.	P	Dawson, B. F.	P
		Colson, W. C.	P	Day, R. L.	P
Cahill, M.	A	Cohn, I.	A	Day, T. M.	A
Caldwell, B.	P	Colen, L. H.	A	D'Artenay, E.	P
Calegaris, J.	P	Coleman, J. E.	A	Deakin, J. W.	P
Callender, J. A.	P	Collins, R. S.	P	Dean, J. B.	P
Calvert, J.	P	Collins, R. E.	P	Dennis, J.	P
Calder, J. W.	P	Collins, J. B.	A	Dennis, W.	P
Calahan, W. E.	P	Collins, W. H.	P	Dennis, J. D.	P
Cahn, N. A.	P	Colpe, C. H.	P	Derge, P. A.	P
Caldecott, T. E.	P	Colpe, G. G.	P	Derick, R. A.	A
Campodonico, J. M.	P	Colette, L. P.	P	Devine, John	P
Campbell, J. W.	P	Cook, H. C.	P	Devine, James	P
Campbell, W. W.	P	Cook, J.	P	Deville, E. P.	P
Campini, V. J.	P	Cook, A. L.	P	DeBlauumford, D. N.	A
Cannon, G.	A	Cook, W. E.	P	DeBarbieri, J.	P
Carman, W. P.	P	Cook, C. A.	P	DeVoin, F. S.	P
Carr, L. T.	A	Cooper, C. J.	A	DeVoin, F. S.	A
Caroway, P. C.	P	Condon, C. E.	A	DeCray, F. A.	A
Carlisle, F. W.	P	Condon, W. S.	P	DeGloria, J. J.	P
Carlberg, M.	P	Connolly, T. W.	P	Dibert, A. J.	P

PHARMACISTS AND ASSISTANT PHARMACISTS—Continued.

Dickhoff, B. S.	P	Elmore, R. H.	P	Ford, H. D.	P
Dickerman, H.	P	Elliot, J. D.	P	Forbes, F. H.	A
Dickinson, F. S.	P	Ellington, A. W.	P	Foote, C. M.	P
Dickson, R. B.	A	Ellis, T. E.	P	Foster, H. J.	P
Diggles, A. M.	A	Ellis, L. T.	P	Foster, C. E.	P
Diggles, J. A.	P	Elsner, F. R.	A	Fouch, A. J.	P
Dignan, M. H.	P	Elwood, F. B.	P	Foulke, G. F.	A
Dillon, J. F.	P	Endert, F. W.	P	Fowler, E. M.	P
Dixon, G. A.	A	Endicott, R. H.	P	France, W. M.	P
Dixon, E. T.	P	Endicott, E. M.	A	Franklin, S.	A
DiNola, A.	P	Engberg, A. F.	A	Franklin, J. H.	P
Dietz, C. J.	P	Engelhardt, A. E.	P	Fraser, T. T.	P
Dietz, G. H.	A	England, W.	A	Fredrickson, C. J.	A
Dodge, M. H.	P	Englesby, F. C.	P	Freeman, G. H.	P
Dodel, H.	P	Englund, W. A.	P	Freeman, J. J.	P
Dodson, L. N.	A	Enos, J. P.	P	Freeman, E. C.	P
Dolley, L.	P	Enriquez, M.	A	Freiden, H. R.	P
Dollinger, C. F.	P	Eppenhimer, W. C.	P	Freitas, C. E.	P
Donahue, H.	P	Eschmann, C. L.	P	Freitas, J. B.	A
Donnelly, W. P.	A	Estudillo, J.	A	Fretz, A. D.	P
Dorais, L. P.	P	Evans, A.	P	Frick, E. L.	P
Dorr, E. W.	P	Evans, C. D.	P	Friend, E.	A
Dorsey, P. G.	P	Evans, S. G.	A	Friedhofer, W. F.	P
Dougherty, J. G.	P	Eveleth, R. H.	P	Frisbee, G. G.	P
Doughty, W.	P	Evers, C.	P	Fritz, J.	P
Downes, E.	A	Ewing, D. A.	A	Fuller, C. F.	P
Downes, C. S.	P	Ewing, J. E.	P	Fuller, Mrs. C. F.	A
Dowling, T. A.	P	Exton, T. C.	P	Furnald, F. A.	P
Dowdall, R. J.	P				
Dowdall, R. E.	P	Fabra, J. A. X.	P	Gallagher, E. H.	A
Douglas, R. A.	P	Fairbanks, H.	P	Gamble, F. A.	P
Doyle, B. B.	P	Fairbanks, C. D.	P	Gardiner, H.	P
Drake, F. N.	P	Fairchild, W. F.	P	Gardner, F. A.	P
Driver, C. E.	P	Falck, F.	P	Garrett, J. R.	P
Driver, J. W.	P	Farley, W. H.	P	Garner, W.	P
Drossel, A. A.	P	Fauda, C. O.	P	Gates, J. R.	P
Drossel, J. H. Jr.	P	Fauda, E.	A	Gates, J. H.	P
Drost, J. D.	P	Faulkner, C. P.	P	Gates, E. P.	P
Drucker, A.	P	Fay, H.	P	Gay, C. L.	P
Drury, J. S.	P	Feig, R.	P	Gay, F. H.	P
Dubois, P. A.	P	Feldbusch, C. H.	A	Gearn, G. C.	P
Duff, M. F.	P	Fellows, M. E.	P	Geary, W.	P
Dugan, H. F.	P	Felt, G.	A	Geary, W. F.	P
Duncan, F. M.	P	Ferré, A. E.	P	Geisler, C.	P
Dunlap, W. H.	P	Ferrea, E. A.	P	Gelinas, L. G.	A
Dunlap, J. R.	P	Ferris, A. M.	P	Gerard, G. L.	P
Duprey, A. J.	P	Ferguson, J. P.	A	Gerdes, H. G.	P
Duprey, J. E.	P	Ferris, C. I.	P	George, W. F.	P
Dunnigan, M. W.	A	Fevrier, J. P.	P	Ghiglieri, G.	A
Dusy, C.	P	Fiege, H.	P	Gibson, W. M.	P
Dwyer, J.	P	Figueiredo, V. L.	A	Gibson, A. Jr.	A
		Finch, C. J. S.	A	Gibson, E.	A
Eadon, W. H.	P	Finger, H. J.	P	Gibson, J. T.	P
Eastland, O.	P	Fischer, C. W.	P	Giese, F. J.	P
Eastman, S.	P	Fisher, E. C.	P	Giffen, R. R.	P
Eaton, J. P.	A	Fitzell, C. R.	P	Gienger, C. J.	P
Eaton, R. T.	P	Fitzell, L.	P	Gillen, C. J.	A
Eberhard, C. E.	A	Flanders, R. E.	A	Gillis, W. T.	P
Eberlin, E.	P	Flatow, P.	P	Gilliland, H. F.	A
Eckhardt, E. W.	P	Fleer, G. W.	A	Gleason, T. F.	A
Edgar, A. R.	P	Flentge, M.	P	Gleason, E. H.	A
Edinger, O. H.	P	Fletcher, D. M.	P	Glines, H. A.	P
Edmiston, N. C.	P	Fletcher, P. H.	P	Goble, L. E.	P
Egbert, H.	A	Flint, J. H.	P	Gogings, S. I.	P
Ehrenpfort, L. A.	A	Flint, T. J.	P	Goff, C. D.	P
Ehrenpfort, P. E.	A	Flint, G. B.	P	Goldaracena, O. M.	P
Eitel, J. M. F.	A	Foley, R. E.	P	Goldnamer, L. N.	P
Ekman, A.	P	Foley, J. W.	P	Goldner, A.	P
Ekstein, A.	P	Folks, J. M.	A	Goodloe, P. V.	A
Elder, H. P.	P	Forester, G. W.	P	Goodman, L.	P
Elliot, J. E.	P	Forneris, A.	P	Goodwin, A. P.	A
Elmore, A. J.	P	Forster, H. J.	P	Gonzales, H.	P
Elmore, A. B.	P	Forster, W. M.	P	Gorman, J. J.	A

PHARMACISTS AND ASSISTANT PHARMACISTS—Continued.

Gove, D. M.	P	Harris, F.	A	Horn, E. L.	A
Graham, T. D.	P	Harris, L.	P	Horne, W. A.	P
Graham, R. L.	P	Hart, F.	P	Horne, W. B.	A
Graham, F.	P	Harvey, W. A.	P	Horne, M.	P
Gray, A. W.	P	Harvey, C. J.	P	Horsnyder, J. H.	P
Gray, N.	P	Harding, J. H.	P	Hornung, J.	A
Gray, W. M.	P	Hardman, J. C.	P	Hornung, E. B.	A
Gray, J.	A	Harmon, W. H.	P	Hourigan, G.	A
Graves, G. W.	P	Harrington, M. T.	P	Houseworth, E. C.	P
Green, W. W.	P	Hartmann, O.	A	Howard, F. W.	P
Green, J. A.	P	Hartmann, F. A.	P	Howard, H. E.	P
Green, F. T.	P	Hawley, W. I.	A	Howe, J. E.	P
Green, C. W.	P	Hawley, R. S.	A	Howland, C. S.	P
Green, M. P.	P	Haworth, C. C.	A	Hubachek, J. H.	P
Green, G. A.	P	Hazelrigg, D. C.	P	Hubbard, F. M.	P
Green, D. B.	P	Happersberger, E.	P	Hudgin, E. L.	P
Greenberg, N. G. W.	P	Hassler, W. C.	P	Hudiburg, F.	P
Greenleaf, T. A.	P	Hastings, B.	P	Huff, L. J.	P
Greenwood, E. N.	P	Hatch, W. M.	P	Hull, D. E.	P
Gregory, L. G.	P	Hatzfeld, J.	P	Hulting, F. B.	P
Gregory, J. N.	P	Hauman, A.	P	Hund, G. B.	P
Grellman, C.	A	Hawkins, G. W.	P	Hunt, D. D.	P
Grenzebach, F. A.	P	Hazen, E. A.	P	Hunter, W. W.	A
Griesche, G.	P	Hearne, W. T.	P	Hunter, W. W. W.	P
Griesche, A. J.	P	Heath, F. M.	P	Hunter, F. A.	P
Grey, F. S.	P	Heath, R. B.	P	Hunter, H. H.	P
Grier, R. S.	P	Heath, J. H.	P	Huntington, H. L.	P
Griffing, E. B.	P	Hedges, F. L.	P	Huntington, W. D.	P
Grimes, F. A.	P	Hedgpath, W. R.	P	Hurtzig, W. F. N.	P
Grimes, V. W.	P	Hedrick, W. M.	P	Husband, J. W.	P
Griswold, V. A.	P	Hefton, W. M.	P	Hutaff, G. H.	P
Grossman, E. L.	P	Hegelstadt, O.	A	Hutchinson, C. S.	A
Groton, W. D.	P	Heider, F. B.	A	Hutchinson, W. B.	A
Groton, J. L.	P	Heinzeman, C. F.	P	Huxtable, E. J.	P
Guatelli, A. A.	A	Heinzeman, E. A.	P	Hyacinth, M.	A
Guedet, J. H.	P	Heinzeman, C. F. Jr.	A	Hyde, E. B.	P
Guest, W. H.	P	Helke, W. L.	P	Hyer, A. F.	P
Guirado, R. C.	P	Hemenover, A.	A		
Gutierrez, B.	P	Henderson, W. McD.	P		
		Henkle, R. E.	P	Illia, J. D.	P
Haderle, J. A.	A	Herbert, J. P.	A	Ing, J. C.	P
Hafner, E. C.	P	Herndon, L. T.	P	Ingram, H.	P
Haggard, S. B.	P	Herriott, D.	P	Ingram, W. D.	P
Hahman, P. T.	P	Herzer, G. A.	P	Ingram, C. H.	P
Haigh, W. R.	A	Hesemeyer, F. W.	P	Inman, P. C.	P
Haigh, A. E.	A	Hesser, F. C.	A	Irvine, D. W.	P
Haight, L. M.	P	Hibbard, C. W.	P	Isaacson, J.	P
Hakes, C. D.	P	Hibbard, O.	A	Ives, H. L.	P
Hall, C. L.	P	Hicks, W. T.	P		
Hall, B. F.	P	Higby, E. P.	P	Jackson, F. F.	P
Hall, L. D.	A	Higgins, M. C.	A	Jackson, W. E.	P
Hall, W. R.	A	Hilby, F. M.	P	Jackson, E. H.	P
Hall, C. E.	P	Hildreth, J. C.	P	Jadarola, R.	P
Halls, G. P.	P	Hill, C. E.	A	James, T. M.	P
Halloran, G.	P	Hill, W. S.	P	James, J. C.	P
Halsell, O. L.	P	Hill, E. L.	A	Janney, R. L.	P
Hambly, W. H.	A	Hill, R. C.	A	January, J. J.	P
Hamlin, B.	P	Hill, J. S.	A	Jeffrey, F. D.	P
Hamlin, W. C.	A	Hines, L. B.	A	Jensen, N.	A
Hammack, G. W.	A	Hitchcock, F. N.	P	Jesson, J.	P
Hammer, M. S.	P	Hobin, W. H.	A	Jewell, H. M.	P
Hammit, C. H.	P	Hoffman, J. J.	A	Jones, T. H.	P
Hammond, C. E.	P	Hoffman, W. A.	P	Jones, F. E.	P
Hanby, P. N.	P	Hogg, A. H.	P	Jones, H. C.	P
Hance, C. H.	P	Hohlweg, F.	P	Jones, P. E.	A
Hansen, A. G.	P	Holcomb, C.	A	Jones, H. F.	P
Hanson, E. W.	P	Holden, I. D.	P	Jochumsen, P. F.	A
Hardy, C. W.	A	Holman, C. F.	P	Joesten, J. J.	P
Hardy, L. E.	P	Holt, A. E.	P	Johnson, E. T.	P
Harper, F. H.	A	Hoover, U. G.	P	Johnson, L. W.	A
Harper, S. A.	P	Hopkins, V. W.	P	Johnson, S. F.	P
Harries, H.	P	Hopkins, T. P.	P	Johnson, D. E.	P
Harris, H. H.	A	Hopkins, H. C.	A	Johnson, H. M.	P

PHARMACISTS AND ASSISTANT PHARMACISTS—Continued.

Johnson, E. F.	P	La Boyteaux, C. H.	P	Lounsberry, J. B.	P
Johnson, J. E.	P	Lacoste, E. T.	P	Lovett, W. B.	P
Johnson, O.	A	Lacey, D. S.	P	Lovejoy, J. H.	P
Johnston, W. S.	P	Lackenback, I.	A	Loutzenheiser, J. G.	P
Johnston, E. E.	P	Laing, L.	P	Loutzenheiser, W. H.	A
Johnstone, A. E.	A	Laing, R. D.	P	Loutzenheiser, W.	P
Jorgensen, E. B.	P	Laird, J. P.	P	Lovotti, F.	P
Jory, H. M. S.	A	Lamb, J. A.	P	Lubosch, M. E.	P
Joy, E. W.	P	Lane, P. H.	P	Lucas, M. F.	P
Juell, N. R. H.	P	Lane, P. D.	A	Ludden, C. A.	P
Juenger, W. H.	P	Lang, R. H.	A	Ludden, J. A.	P
		Lang, A.	P	Ludlow, F. G.	P
Kabisius, W.	P	Lang, A. C.	P	Lundell, C. J.	P
Kahler, E.	P	Langdon, F. S.	P	Luttrell, G. M.	P
Kahler, F. W.	P	Lapidaire, H.	P	Lutz, W. G.	P
Kahler, A. P. G.	P	Large, C. F.	P	Lynch, O. J.	P
Kallam, J. L.	P	Larkins, C. T.	P	Lyon, J. A.	P
Kalliwoda, H.	P	Lasch, J. J.	P		
Keck, F. C.	P	Lasley, C. C.	P	Maass, A.	A
Keith, B.	P	Latimer, B. G.	P	Macgibbon, E. E.	P
Keefer, G. H.	P	Lauck, G. A.	A	MacIver, D. B.	P
Keefer, M. A.	A	Laughlin, B. E.	P	MacLeod, J. A.	A
Keller, F. W.	P	Laughlin, J. B.	P	MacSwiney, E.	P
Keller, G. P.	P	Laux, C.	P	Mack, A.	P
Keller, C. F. Jr.	P	Laurence, A.	P	Macken, L. Jr.	P
Keenan, C. V.	P	Laurence, J. J.	P	MacIsle, J.	P
Keene, E. B.	P	Lawrence, G. W.	P	Macy, W. S.	A
Kelley, C. S.	P	Lawson, W. H.	P	Macy, C. F.	P
Kelly, C. L.	A	Leavell, A. D.	P	Madden, W. A.	P
Kelly, W. A.	P	Leavy, L. S.	P	Madden, E. L.	P
Kelly, F. S.	P	Leber, A. L.	P	Maggard, W. F.	P
Kelly, J. E.	A	Leddy, G. M.	A	Maguire, W. A.	P
Kelton, J. O.	P	Leeman, L. E.	P	Mahony, J. J.	P
Keppel, V. E.	A	Leet, R. A.	P	Mahoney, J. J.	P
Kergan, H. S.	P	Leggett, J. J.	P	Malone, T. S.	P
Kent, R. W.	P	Leibrecht, E. F.	P	Malone, T.	A
Kendrick, H. W.	A	Leigh, F. J.	A	Manchester, F. C.	A
Kerr, W. W.	P	Leithhead, W. W.	P	Manning, J. M.	P
Kerrick, J. H.	P	Lengfeld, A. L.	P	Manderscheid, C.	P
Kesseler, A. A.	P	Lengfeld, J. L.	P	Manderscheid, O.	A
Kidder, L. A.	P	Lengfeld, F.	P	Mardis, B. A.	P
Kiernan, P. F.	P	Lernhart, Aug.	P	Marett, M. H.	P
Kimball, W. S.	P	Lernhart, Alb.	P	Marsh, G. W.	P
King, J. M.	P	Levin, A.	P	Marsh, A. L.	A
King, W. H. V.	A	Levinson, J.	P	Marson, D. A.	A
Kinney, L. C.	P	Levy, G. S.	P	Martin, J.	P
Kirby, C. M.	A	Lewis, W. B.	P	Martin, C. B.	P
Kirby, A.	P	Lewis, C. H.	P	Martin, H. J.	P
Kirk, H. S.	P	Lewis, F. J.	P	Martin, R. S.	P
Kirkham, W. A.	P	Lewis, T. J.	A	Martin, W. H.	A
Kitzmeyer, C. L.	P	Lewis, R. W.	A	Marquis, W.	P
Klahr, R. S.	A	Lewis, L.	A	Marquis, F. T.	A
Klein, C. W.	P	L'hote, E.	A	Mason, D. E.	P
Klein, C. J.	P	Lich, R.	P	Mason, D. N.	P
Kline, C. G.	P	Lichterman, J.	P	Mateer, E. T.	P
Klinkner, F. S.	P	Lichthardt, G. H. P.	P	Mathews, E. J.	P
Kleuter, H.	P	Lindsay, J. C.	P	Mathis, C. H.	P
Knapp, C. R.	P	Lindstrom, C.	A	Matschek, F. L.	P
Knickerbocker, L. M.	P	Lippen, H.	P	Matthiesen, J. C.	P
Knight, P. J.	A	Liscomb, A. H.	P	Maxwell, W. A.	P
Knotwell, H. M.	A	Lockwood, F. E.	P	May, J. A.	A
Koehler, J. P.	P	Loehr, G. W.	P	May, C. L.	A
Kolliker, F.	P	Logan, J. A.	A	Mayer, B.	P
Kosby, A. E.	P	Logie, T. P.	P	Mayer, E.	P
Koser, N. A.	P	Lomelino, A. C.	P	Maynard, H. H.	P
Krakau, W. E.	P	Lomelino, J. W.	P	Maze, E. B.	P
Kratzenstein, C. C.	P	Lonergan, J. J.	P	Meddaugh, O. E.	P
Krebs, O. F.	P	Long, C. S.	P	Medland, F. J.	A
Krohn, D.	A	Long, C. E.	P	Meier, R. V.	A
Krough, P. P.	P	Longley, O. A.	P	Mellen, B. W.	A
Krough, F. P.	P	Lopizich, J.	P	Mendelson, L. A.	P
Kruell, F. J.	P	Loring, E. B.	P	Menge, H. C.	P
Kruell, F. C.	A	Lott, H. V.	P	Mentz, C. H.	P

PHARMACISTS AND ASSISTANT PHARMACISTS—Continued.

Mentz, W. J.	A	McCord, L. A.	P	North, E. H.	P
Mervy, J. A.	P	McCutchen, T. L.	P	Norton, L. E.	P
Mervy, L. A.	A	McElney, J.	P	Noyes, C. F.	P
Mess, C. F.	P	McDonald, J. A.	P	Nye, W. P.	P
Metcalfe, H. F.	P	McDonnell, S. A.	P	O'Connell, F.	P
Meyers, W. L.	P	McDonnell, J. J.	P	O'Connor, D. L.	P
Miller, B. F.	P	McDonnell, H. L.	P	Oesting, P.	P
Miller, J. M.	P	McEwen, W. M.	A	O'Farrell, F.	P
Miller, N. N.	P	McFarlane, A. H.	P	Off, E. T.	P
Miller, H. A. F.	P	McGarry, P. J.	P	Olds, G. L.	P
Miller, L.	P	McFadden, J. A.	P	Oliva, G.	P
Miller, G.	P	McGivern, E. J.	A	O'Neil, A. E.	P
Miller, S.	P	McGoodwin, E. C.	A	Osgood, H. L.	P
Miller, H. L.	P	McGuire, T.	P	Osgood, F. S.	P
Millard, F. R.	P	McHaffie, J. H.	P	Osgood, W. J.	A
Mills, J. M.	P	McKean, W. G.	P	Osswalt, J.	A
Michaelis, E.	P	McKean, W. P.	P	Osuna, L.	A
Michieli, J. P.	P	McKee, J. A.	P	Ott, F. S.	P
Mieding, R. H.	P	McKee, J.	A	Owen, F. D.	P
Mitchell, J. H.	P	McKee, B. E.	A	Packard, C. O.	P
Mitchell, J. S.	P	McKenna, H. A.	P	Packscher, M. G.	A
Mitchell, V.	A	McKie, J. H.	P	Painter, G. L.	A
Mixer, F. W.	P	McKim, G. W.	P	Palmer, S. A.	P
Molony, E. J.	P	McKinlay, E.	P	Park, H. L.	P
Moltzen, W. F. A.	P	McKinnie, F. C.	P	Parke, E. T.	P
Monckton, A.	P	McKown, J. O.	P	Parker, G. W.	P
Monroe, G. H.	P	McLain, G. H.	P	Parker, W. S.	P
Montague, J. W.	P	McLaughlin, J. B.	P	Parr, W. W.	P
Moody, A. R.	P	McLaughlin, J. G.	P	Parrett, W. E.	P
Mooney, J.	A	McLeod, W. D.	P	Parrish, H.	P
Moore, R. E.	A	McLeod, C. W.	A	Parry, I. M.	P
Moore, F. E.	P	McMaster, A. D.	P	Parsons, C. L.	A
Moore, P. L.	P	McMenamin, M. W.	P	Partecke, O.	A
Moore, H. C.	P	McMillan, D. N.	P	Patterson, J. A.	P
Morehead, G. G.	P	McMorry, P. F.	P	Patterson, W. A.	P
Morehead, F. A.	P	McMurray, M.	P	Patterson, F. F.	P
Morehead, H. H.	A	McNair, J. S.	P	Patterson, F. A.	A
Morey, C. E.	P	McNamara, N. J.	P	Paul, A. A.	P
Morgan, C. L.	P	McNulty, C. R.	P	Peck, R. J.	P
Morgan, J. E.	A	McPhee, R. G.	A	Perrin, F. W.	A
Morgan, H. D.	A	McPike, L. B.	A	Peterson, J. C.	A
Morin, S. W.	P	McQueen, H. M.	P	Petter, R. S.	P
Morris, H.	A	McQuiddy, R. D.	A	Pearce, S. W.	A
Morrish, F. W.	P	McWhinnie, A. U.	A	Pearlman, S. M.	P
Morrison, F. T.	P	Naftel, W. J. C.	P	Pearson, S. J.	P
Morse, C. M.	P	Nance, C. H.	P	Pellerano, N. L.	P
Moulton, H. M.	A	Nash, B.	P	Pelton, H. L.	P
Mountain, H.	P	Neal, C. W.	P	Pencovici, M. H.	P
Mouron, O. J.	P	Neal, R. L.	A	Pendleton, E. O.	P
Moyers, A. D.	A	Neblett, W. E.	P	Perkins, E. W.	P
Muller, M.	P	Neill, J. C.	P	Perrin, T. C.	P
Munroe, L. F.	A	Nelson, A. V.	P	Perry, P. P.	P
Munson, J. G.	P	Nelson, G. H.	A	Perry, W. E.	A
Murphy, L. D.	P	Newlon, H. M.	P	Peters, T. C.	P
Murphy, W. E.	A	Newby, T. S.	P	Peters, C. J.	P
Murray, J. R.	P	Newman, C. C.	P	Pfaeffle, R. W.	P
Muse, A. E.	P	Newman, R. J.	P	Phillip, W. B.	P
Myers, F. E.	P	Nichols, W. V.	P	Phillips, T. F.	P
Myers, G. W.	A	Nichols, H. S.	P	Phillips, H. A.	A
McAuliffe, T. W.	P	Nicholson, E. J. H.	P	Phillips, M.	P
McBoyle, A.	P	Nicholson, J. R.	P	Phillips, W. J.	A
McBride, E. J.	P	Nickum, J. W.	P	Phillips, G. H. A.	P
McBride, G.	A	Niedecker, C. E.	P	Pick, E. E.	P
McCartney, W. S.	P	Nielsen, A. P.	P	Pierce, L. W.	P
McCarthy, T. B.	P	Nightingale, J. B.	P	Pipkin, J. M.	A
McCarthy, J. H.	P	Nish, F. W.	P	Plaus, C. H.	P
McCarthy, F. J. T.	P	Noble, C. H.	P	Player, L. P.	A
McCarty, G. A.	P	Noble, E.	P	Plummer, E. J.	P
McClintock, T. B.	P	Noe, E. H.	A	Plymire, D. B.	A
McClure, R. J.	P	Nohrden, E. H.	A	Poage, J. H.	P
McComas, H.	P	Norman, R. A.	P	Poehner, A. A.	P
McConnell, M.	P	North, D. B.	P		

PHARMACISTS AND ASSISTANT PHARMACISTS--Continued.

Poirier, E. G.	A	Robinson, J. G.	P	Schroeder, L. A.	P
Poley, W. M.	P	Robinson, J.	P	Schuldt, H. F.	P
Pond, H.	P	Robinson, E. C.	P	Schwab, J. F.	A
Pond, W. R.	P	Robson, H. P.	P	Schwartz, H.	P
Pooler, C. B.	P	Rockstroh, F. E.	A	Schwartz, N.	P
Potter, Q. M.	A	Rockwell, L. A.	P	Schultze, P.	P
Powell, R. B.	P	Roddick, J. R.	A	Schwartzschulz, H.	P
Powell, W. C.	P	Rodgers, F.	P	Scott, J. B.	P
Powell, C. H.	P	Roeder, L.	P	Searby, W. M.	P
Powers, C. L.	P	Roethe, C. H.	P	Seay, W. W.	P
Price, T.	P	Rogers, S. S.	P	Seawell, F. H.	A
Price, J. A. V.	P	Rogers, R. A.	A	Se Brell, J. D.	P
Prindle, E. C.	P	Root, G. A.	P	Seccombe, W. C.	A
Pring, E.	P	Rose, J. B.	A	Seibert, D. P.	P
Pring, W. H.	A	Roseman, W. L.	P	Sellgren, N. F.	P
Prosser, A. M.	P	Ross, G. I.	P	Selzer, M. J. E.	P
Prouty, R. L.	P	Rossi, D. P.	P	Selzer, M. E.	A
Purse, F. J.	P	Rossi, P. C.	P	Selzer, E. E.	A
		Rosson, C. T.	P	Serene, H.	A
Quinn, W. S.	P	Rosenfeld, E. A.	P	Settle, J. M.	A
Quinn, W.	P	Rosenberger, W. D.	P	Seymour, A. P.	P
Quirin, F. J.	P	Rosenberger, E. S.	A	Seymour, J. H.	P
		Rounds, C. C.	P	Shade, M. A.	P
Ramage, R. C.	P	Rowe, F. W.	P	Sharp, S. A.	P
Ramirez, M. M.	P	Rowley, C. H.	P	Shearer, J. L.	A
Ramlot, E.	P	Rowley, A. R.	P	Shedden, G. S.	A
Ramsay, E. H.	P	Royer, C. H.	P	Sheldon, F. D.	P
Ramsay, J. G.	P	Ruhser, F. W.	P	Shellen, H. A.	P
Rapp, W. H.	P	Ruiz, B. P.	A	Shelton, J. R.	P
Rankin, R. R.	P	Ruiz, L. F.	P	Shelton, R. E.	A
Rankin, C. M.	P	Ruiz, A. M.	P	Sherman, G. A.	P
Rattan, F.	P	Rulison, F. C.	P	Sherwood, H. M.	P
Rauchfuss, O. E. H.	A	Russell, E. B.	A	Sherwood, F. J.	A
Rawlings, E. C.	P	Russell, W. H.	A	Shideler, A. F.	P
Ray, D.	P	Ryan, D.	P	Shoults, R. G.	P
Ray, F. E.	P	Ryan, P. A.	P	Shumate, T. E.	P
Redmond, J. E.	P	Ryan, M. J.	P	Siebs, H. H.	P
Redmond, G. J.	P			Siegner, G.	A
Reeb, F.	P	Sadler, A.	P	Silver, T. H.	P
Reed, C. M.	P	Saeger, B. L.	P	Simmons, W. A.	P
Reed, J. D.	P	Sain, J. H.	P	Simmons, L. S.	P
Reed, W. H.	P	Sale, H. M.	P	Simpson, W.	P
Reher, J. C.	P	Sale, L. D.	P	Simpson, G. W.	P
Reid, R.	P	Salmon, E. P.	A	Sing, H.	P
Reid, R. L.	P	Salter, J. W.	P	Skilling, H. H.	P
Reid, M.	A	Salter, E. E.	A	Skinkle, A.	P
Reilly, E. T.	A	Sanborn, A. P.	P	Skinner, R. W.	P
Rees, D. R.	P	Sandelin, F.	P	Skinner, E. E.	P
Reeve, J. L.	P	Sands, J. B.	A	Smede, C. R.	P
Reindollar, T. B.	A	Sanford, J. A.	P	Smith, C. K.	P
Renfro, T. F.	P	Sangster, J. E.	P	Smith, A. E. H.	P
Renfro, V. A.	A	Sargent, J. S.	P	Smith, G. H.	P
Reynolds, R. G.	P	Saunders, D. C.	P	Smith, W. A.	P
Reynolds, H. G.	P	Saunders, Z. W.	P	Smith, W. H.	P
Rhea, A. R.	P	Scamell, A. E.	P	Smith, A. A.	P
Richardson, W. H.	P	Schaefer, V. L.	P	Smith, G.	P
Richardson, E.	P	Scherb, H. L.	P	Smith, W. C.	P
Richter, C.	P	Schetter, E. O.	P	Smith, T. H.	P
Richter, W. C.	P	Schirman, R. J.	P	Smith, L.	P
Rigg, T. J.	P	Schlott, D. C.	P	Smith, V. P.	P
Riggs, J. S.	P	Schmelz, C. J.	P	Smith, E. J.	P
Riggs, Z. J.	P	Schmidt, V.	P	Smith, R. H.	P
Riley, W. C.	P	Schmidt, E. V.	P	Smith, H. L.	P
Riley, C. C.	A	Schmidt, A. O.	P	Smith, G. L.	P
Rimpau, F. T.	P	Schmidt, A. F.	P	Smith, J. W.	P
Ring, J. H.	P	Schmidt, T.	P	Smith, C. H. D.	P
Ringe, R.	P	Schmitt, A. H.	P	Smith, E. L.	P
Ritter, A.	P	Schmitz, L. A.	P	Smith, H. E.	A
Robb, R. H.	A	Schneider, B.	P	Smith, R. L.	A
Robbins, G. L.	P	Schnitker, J. J.	A	Snedden, M. B.	P
Robbins, S. H.	P	Scholl, A. L.	P	Snowden, R. R.	P
Robertson, W.	P	Schreiber, C. D.	P	Somers, W. G.	A
Robinson, M. A.	A	Schoenheit, A.	P	Southall, S. J.	P

PHARMACISTS AND ASSISTANT PHARMACISTS—Continued.

Sowell, J. W.	P	Teague, A. E.	P	Virmillion, W. A. S.	P
Spaeth, G. C.	P	Teass, F. M.	P	Vogel, R. F.	P
Spagnoli, D. B.	P	Temple, J.	P	Vollmer, J. A.	A
Spagnoli, U. G.	P	Terwilliger, D. R.	A	Volkman, M. F.	P
Spalding, J. B.	P	Thiele, E. H.	A	Voluntine, K.	P
Speary, J. L.	A	Thom, E. J.	P	Von Radesky, C. W. R.	P
Spence, J. S.	P	Thomas, A. B.	P	Von Werthern, J.	P
Spieker, J. J.	P	Thomas, E. C.	P	Von Werthern, H.	A
Spiro, H.	P	Thomas, T. B.	A	Voss, G. H.	P
Spivey, T. A.	P	Thomas, Z. L.	A		
Spoer, W. L.	P	Thompson, L. H.	P	Wachs, H.	P
Sporndli, E.	P	Thompson, P. H.	A	Wadams, W. E.	P
Squire, P. E.	A	Thompson, W. B.	P	Wade, L. T.	A
Squires, H. J.	P	Thompson, L. Q.	P	Wagener, S. H.	P
Stange, C. F.	P	Thompson, H. B.	A	Wait, C. E.	P
Stannard, H. S. G.	P	Thurber, A. R.	P	Walden, G. R.	P
Stanton, W. M.	P	Tibbits, L. C.	P	Wall, W. C.	A
Stapleton, E. J.	A	Tillman, C. F.	A	Wall, P.	P
Stapleton, E. D.	A	Tobin, J. H.	P	Walsh, A. D.	P
Starbuck, W.	P	Tobriner, I.	P	Wapple, G.	P
Starbuck, F. J.	P	Todd, D. B.	P	Walker, C. C.	P
Starbuck, A.	P	Todd, F. H.	A	Waltenspiel, G. A.	P
Starbuck, E. C.	A	Tolman, G. P.	P	Walters, E. A.	P
Stark, W. H.	P	Tong, T. L.	P	Warboys, J. W.	P
Stauffer, H. C.	P	Toogood, C. C.	P	Ward, R. M.	P
Steele, J. G.	P	Topley, J.	P	Ward, C. H.	P
Steen, D. B.	P	Topley, J. H.	P	Ward, A. C.	P
Steen, J.	P	Topley, W. H.	P	Ware, J. S.	A
Steinhauser, E.	P	Torello, E. N.	P	Warhanik, E. M.	P
Steinman, G.	P	Torrence, J. S.	P	Warren, E. E.	P
Stevens, S. M.	P	Towne, F. M.	P	Warren, W. McK.	P
Stevens, F. S.	A	Towne, W.	P	Washburn, C. L.	P
Stephens, C. E.	A	Towson, E.	P	Washburne, M. A.	P
Stephenson, J. F.	P	Trautz, O. G.	P	Waterman, W. L.	P
Stewart, G. A.	A	Trefry, T. A.	A	Watkins, F. F.	P
Stewart, W. M.	P	Trewartha, W.	P	Watson, K. E.	A
Stilson, W. E.	P	Trowbridge, H. O.	P	Watson, V. B.	P
Stinson, C. G.	P	Trubschenck, N. H. A.	P	Watt, G.	P
Stocker, J. B.	P	True, A. A.	P	Watters, A. J.	P
Stocker, W. W.	P	Trueworthy, T. D.	A	Waugh, H. H.	P
Stoddard, A. C.	P	Trull, F. W.	P	Weaver, C. R.	P
Stone, B. I.	P	Trull, Mrs. F. W.	A	Webb, H. H.	P
Stone, H. N.	P	Truppel, R. S.	P	Webb, E. O. Jr.	P
Story, C. F.	P	Tubbs, H. S.	A	Webster, J. A.	P
Strahlmann, E.	P	Tufts, A. C.	P	Webster, E. E.	P
Strain, W. I.	A	Turpin, H. E.	P	Webster, M.	P
Strait, A. D.	A	Turner, G. S.	P	Weck, C. E.	P
Strange, S. P.	P	Turner, W. P.	P	Wedemeyer, F. G.	P
Stratton, J. A.	P	Turner, G. W.	A	Weidler, C. L.	P
Stroud, J. R.	P	Tuttle, C. K.	P	Weihe, O. A.	P
Styan, W. E.	P	Twining, C. M.	P	Weingartner, E. C.	P
Suelflohn, B. F.	P			Weiss, P.	P
Sullivan, W. J.	A	Ulman, F. G.	P	Weitman, C. L.	P
Sulliger, W. R. H.	P	Upp, A. F.	A	Welliver, R. F.	P
Surbaugh, J. T.	P			Welti, L.	P
Sutherland, G. M.	P	Van Allen, L.	A	Wiese, R.	A
Sulzberger, T. L.	P	Van Dam, F.	A	Wendelborn, W.	A
Swain, G. M.	A	Van Fossen, L.	P	Wells, E. W.	P
Swart, A. T.	P	Van Fossen, F. B.	A	Wells, W.	P
Swart, J. F.	P	Van Haren, F. E.	P	Wenger, F. D.	A
		Van Horn, F. N.	P	Wentz, G. A.	P
		Van Sull, A.	A	Wescheke, E.	P
Taber, W. Z.	P	Van Voorhies, R. J.	P	Wessenberg, D. W.	P
Taggart, E.	P	Vance, J. G.	A	West, E. F.	A
Taggart, J. P.	P	Vanderbeck, H. D.	A	Westlake, L. J.	P
Talcott, L.	P	Vandyke, E.	P	Wheeler, W. P.	P
Talcott, L. L.	P	Vansant, R. H.	P	Whidden, R. A.	P
Tanner, J. G.	P	Varga, A. R.	P	Whitacre, C. B.	P
Tanner, E. S.	P	Vaughn, J. W.	P	Whitby, E. R.	A
Tarter, A. P.	P	Veale, A. F.	P	Whitcomb, G. O.	A
Taylor, W. N.	P	Vinton, W. D.	P	White, R. E.	P
Taylor, F. B.	A	Virden, E.	P	White, J. W.	P
Taylor, G. A.	A	Virden, B. S.	P	White, J. O.	P
Taylor, R. E.	P				

PHARMACISTS AND ASSISTANT PHARMACISTS.—Continued.

White, W. E.	A	Wise, T. F.	P	Wright, L. A.	P
White, A. H.	P	Wishart, W. A.	P	Wuenschel, C.	A
White, M. V.	A	Witmer, J.	P	Wulzen, D. H.	P
Whiting, F. M.	A	Wolf, M. J.	A	Wynne, H. F.	P
Whitlock, J. L.	P	Wolf, F. C.	P		
Whitlock, R. G.	P	Wolf, E. A.	P	Yardley, H. E.	P
Whitney, W. B.	P	Wolf, G. L.	A	Yarnell, E. T.	P
Wickizer, H.	P	Wolfe, J.	P	Yonge, J. F. M.	P
Wigginton, J. W.	A	Wolfe, C. H.	P	Yost, J. A.	A
Wiley, G. A.	P	Wolfe, N. E.	A	Young, A. L.	P
Wilkins, L.	A	Wolff, I.	P	Young, H. J.	A
Williams, E.	P	Wolff, W. J.	P	Young, J.	P
Williams, L. E.	P	Wolff, C. W.	P	Young, C. H.	P
Williams, W. F.	A	Wolff, M.	A	Yungling, F. P.	A
Willis, O. P.	P	Wallenberg, C. M.	P		
Wilson, F. H.	P	Wood, J. W.	P	Zabaldano, A.	P
Wilson, G. O.	P	Wood, I. N.	P	Zeh, L.	P
Wilson, M. C.	A	Wood, E. G.	P	Zeh, F.	A
Wilson, G. B.	P	Woolston, S.	A	Zeile, C. D.	P
Winch, F. C.	P	Worland, H. C.	P	Zeilin, W. S.	P
Winchester, C. E.	A	Worthington, W. F.	A	Zerr, F.	P
Winter, W. H.	P	Wrede, T.	P	Zimelli, M. J.	P
Winter, J. H.	P	Wrede, H.	P	Zimmerman, S. H.	P
Winter, C. H.	P	Wright, N.	P	Zipf, J. P.	P

REPORT OF TRUSTEES
OF
STATE NORMAL SCHOOL
AT SAN JOSE

FOR THE
YEARS ENDING JUNE 30, 1899, AND JUNE 30, 1900.



SACRAMENTO:
A. J. JOHNSTON, : : : : SUPERINTENDENT STATE PRINTING.
1901.

REPORT.

STATE NORMAL SCHOOL AT SAN JOSÉ,
October, 1900.

To His Excellency HENRY T. GAGE, *Governor:*

We herewith submit to your Excellency the following report of receipts and expenditures for the support and maintenance of the State Normal School at San José, under our charge, for the fiftieth and fifty-first fiscal years.

The estimates for the fifty-third and fifty-fourth fiscal years are as follows:

Salaries	\$110,000 00
Supplies.....	15,000 00
Library, museum, and scientific apparatus	10,000 00
Repairing building, painting inside, and adding additional closets	5,000 00
Grounds.....	8,000 00
Building for library and six additional class-rooms; furniture, equipments, and heating and ventilating apparatus for same..	40,000 00
Printing.....	2,000 00
Building and equipping gymnasium.....	10,000 00

In submitting these estimates for your consideration, we have asked for the lowest amount possible to conduct the school, with its present enrollment, in the highest state of efficiency.

DR. H. C. BROWN,
FRANK W. LEAVITT,
GEORGE W. PIERCE,
FRANK H. SHORT,
GEO. A. SWEIGERT,

Board of Trustees San José State Normal School.

FINANCIAL REPORT.

FOR THE FIFTIETH FISCAL YEAR, ENDING JUNE 30, 1899.

APPROPRIATION FOR SUPPLIES.

Receipts.

Amount of appropriation	\$4,000 00
Balance from forty-ninth fiscal year	457 30

Date of
Auditing.
1898.

Disbursements.

July 26—	W. W. Thompson, making partition room "K," etc.	\$190 65
	Santa Clara Valley Mill and Lumber Co., lumber	24 12
	San José Light and Power Co., gas	15 85
	J. C. Black & Son, janitor's supplies	11 80
	Sunset Telephone Co., rent of 'phones, etc.	7 40
	Farmers' Union, wire rope and cord	5 60
	M. M. Haas Co., stationery	3 75
	Schemmels Music Co., tuning one piano	2 50
	J. M. Dixon, one piece chamois skin	1 80
	Boschken Hardware Co., nails, etc.	1 30
Sept. 3—	Sunset Telephone Co.	6 40
	Farmers' Union, supplies	12 45
	W. E. Sangster, two waste-baskets	2 00
	J. P. Jarman, 18 gallons dustless oil, etc.	26 45
	R. N. Nason, cylinder oil	50 00
	Buchanan Bros., turkey dusters and brooms	36 00
	J. P. Jarman, kalsomining, etc.	117 70
	L. Lion & Son Co., 96 yards carpet	86 40
	W. E. Coombs, slating blackboards	92 75
	L. Aubert, cleaning carpets	31 36
	J. H. Elwood, one piano	98 00
Oct. 4—	M. M. Haas Co., stationery	24 87
	Santa Clara Valley Mill and Lumber Co., repairing tables, etc.	17 07
	Sunset Telephone Co.	4 75
	Frank E. Smith, repairing clock	15 50
	Cherrie & Co., one dozen scissors	3 00
	San José Furniture Co., 6 kindergarten chairs, etc.	9 35
	San José Mercury Co., advertising	7 30
	San José Evening News, advertising	3 50
	Herald Publishing Co., advertising	3 50
	Boschken Hardware Co., supplies	4 20
	M. M. Haas Co., kindergarten material	94 68
	Brookfield & Scott, placing pipe for solar lantern	13 27
Nov. 1—	C. A. Barker, 114 $\frac{22}{40}$ tons coal	1,231 89
	J. A. Belloli, 8½ cords pine wood	48 87
Dec. 2—	S. E. Moreland, painting, papering, etc.	58 50
	Santa Clara Valley Mill and Lumber Co., lumber	31 32
	San José Light and Power Co., gas	11 30

1899.

APPROPRIATION FOR SUPPLIES—Continued.

Jan.	5—John Stock Sons Co., one pump	\$111 71
	Santa Clara Valley Mill and Lumber Co., lumber and glass.....	23 18
	San José Light and Power Co., gas.....	10 15
	H. J. Grey, repairing pump.....	18 40
	J. P. Jarman, paints, etc., for decorating hall.....	104 62
Feb.	28—C. A. Barker, coal.....	393 20
	California Distilling Co., 2 barrels alcohol.....	60 40
	M. M. Haas Co., 5 kindergarten tables.....	52 00
	Farmers' Union, supplies.....	19 53
	San José Light and Power Co., gas.....	9 40
	San José Furniture Co., one dozen chairs.....	9 00
	J. P. Jarman, varnish, paint, etc.....	6 60
	I. Loeb Bros., crash toweling, etc.....	5 20
	Santa Clara Valley Mill and Lumber Co., lumber.....	4 43
	Boschken Hardware Co., hardware supplies.....	3 57
Mar.	31—Farmers' Union, pipe, etc.....	27 77
	H. L. Miller, stationery.....	25 09
	Sunset Telephone Co., rent of 'phones, etc.....	18 30
	O. K. Abels, one cord wood.....	7 50
	Frank E. Smith, repairing batteries.....	3 00
	A. R. Denike, tuning three pianos.....	7 50
	Tesla Coal Co., weighing coal.....	2 25
	Santa Clara Valley Mill and Lumber Co., lumber.....	6 85
	Boschken Hardware Co., supplies.....	7 63
	Geo. B. McKee Co., glass, etc.....	2 70
	San José Light and Power Co., gas.....	2 70
April	28—San José Furniture Co, one china cupboard.....	9 10
	I. Loeb Bros., crash toweling, etc.....	2 00
	Santa Clara Valley Mill and Lumber Co., lumber and glass.....	38 18
	Elizabeth Blasdel, Secretary, incidentals.....	12 77
	Benj. Curtaz, rent of piano.....	6 00
	Boschken Hardware Co., supplies.....	1 10
	Sunset Telephone Co.....	17 45
	San José Light and Power Co., gas.....	6 90
	H. L. Miller, stationery.....	12 55
	C. H. Ashworth, washing curtains.....	1 00
	San José Electrical Works, recharging batteries.....	3 50
	M. M. Haas Co., stationery.....	1 25
	Ruth Royce, typewriting.....	5 00
June	2—J. A. Belloli, 6¼ cords of wood.....	35 94
	J. C. Black & Son, supplies.....	4 30
	O. K. Abels, ½ cord of wood.....	3 75
	Benj. Curtaz, rent of piano.....	3 00
	J. P. Jarman, sand, etc.....	4 40
	Santa Clara Valley Mill and Lumber Co., lumber, lights of glass..	9 60
	Elizabeth Blasdel, Secretary, incidentals.....	15 05
	Sunset Telephone Co.....	12 80
	E. H. Guppy & Son, paper.....	1 50
	San José Light and Power Co., electric lights.....	3 00
	San José Light and Power Co., gas.....	7 75
	R. E. Wilhoit, expense attending Board meeting.....	5 00
	George W. Pierce, expense attending Board meeting.....	7 70
	Frank H. Short, expense attending Board meeting.....	16 25
	H. C. Brown, expense attending Board meeting.....	3 75
	George A. Sweigert, expense attending Board meeting.....	3 75
	Elizabeth Blasdel, Secretary, expense attending Board meeting ..	2 70
	H. L. Miller, stationery.....	19 79

1899. APPROPRIATION FOR SUPPLIES—Continued.

June 2—Farmers' Union, supplies.....	\$12 40
A. R. Denike, part payment on one piano.....	471 70
July 1—W. E. Montague & Co., one range.....	32 50
J. C. Black & Co., cooking utensils.....	14 50
J. A. Belloli, 2 cords of wood.....	11 50
Evening News, advertising.....	36 00
San José Light and Power Co., gas.....	17 75
J. C. Black & Son, supplies.....	4 15
George B. McKee & Co., repairing window shades.....	1 00
James D. Miner, one stepladder, etc.....	6 95
Bertha Warren, lettering diplomas.....	27 40
Rebecca F. English, 600 copies of music.....	7 50
H. L. Miller, stationery.....	7 29
A. R. Denike, tuning pianos.....	12 25
Santa Clara Valley Mill and Lumber Co., shelf and bracket.....	3 00
Santa Clara Valley Mill and Lumber Co., cases for museum.....	100 00
George W. Pierce, expense attending Board meeting.....	13 60
F. W. Leavitt, expense attending Board meeting.....	5 90
F. H. Short, expense attending Board meeting.....	23 30
Elizabeth Blasdel, Secretary, traveling expenses.....	8 70
Total appropriation.....	<u>\$4,457 30</u>

APPROPRIATION FOR SALARIES.

Receipts.

Amount of appropriation for salaries of officers, teachers, and employés of the State Normal School at San José, fiftieth fiscal year.....	\$46,000 00
Balance from forty-ninth fiscal year.....	<u>1,990 56</u>

Date of
Auditing.
1898.*Disbursements.*

July 26—Paid salaries for July, 1898.....	\$3,849 95
Sept. 3—Paid salaries for August, 1898.....	3,849 95
Oct. 4—Paid salaries for September, 1898.....	3,878 29
Nov. 1—Paid salaries for October, 1898.....	3,983 70
Dec. 2—Paid salaries for November, 1898.....	3,993 70
1899.	
Jan. 5—Paid salaries for December, 1898.....	4,163 70
Feb. 1—Paid salaries for January, 1899.....	4,054 95
Feb. 28—Paid salaries for February, 1899.....	4,009 95
Mar. 31—Paid salaries for March, 1899.....	4,009 95
Apr. 28—Paid salaries for April, 1899.....	4,017 45
June 2—Paid salaries for May, 1899.....	3,833 33
July 1—Paid salaries for June, 1899.....	4,124 95
	<u>\$47,769 87</u>
Unexpended balance June 30, 1899.....	220 69
Total.....	<u>\$47,990 56</u>

APPROPRIATION FOR LIBRARY, MUSEUM, AND SCIENTIFIC APPARATUS.

		<i>Receipts.</i>	
Amount of appropriation			\$1,250 00
Balance from forty-ninth fiscal year			39 99
		<hr/>	
<i>Date of Auditing.</i>		<i>Disbursements.</i>	
1898.			
July 26—	Draper Manufacturing Co., 100 thermometer charts		\$3 10
Oct. 4—	M. M. Haas Co., periodicals		67 25
	Queen & Co., physical apparatus		8 10
	George Breck, one generator and carbons		17 25
	W. E. Sangster, material for art department		2 20
	R. Helwig, one half dozen specimen jars		1 80
	O. A. Hale & Co., material for art department		11 55
Nov. 1—	M. M. Haas Co., books		117 52
	National Educational Association, 3 vols. N. E. A. Proceedings		6 00
	James D. Miner, tools for manual training		58 00
	Edwin E. Howell, 1 relief map		45 00
	W. C. Witter Co., charts and plates for art department		11 68
	Whitaker & Ray Co., maps		25 50
	Open Court Publishing Co., portraits		9 50
	Santa Clara Valley Mill and Lumber Co., sand trays		9 25
	Ziegler Electric Co., physical apparatus		24 72
	O. A. Hale & Co., material for art department		11 10
Dec. 2—	M. M. Haas Co., books		103 89
	M. M. Haas Co., periodicals		37 45
	Alfred A. Post, books		86 00
	H. G. Kennedy, books		20 00
	Bausch & Lomb Co., microscopes, etc.		87 45
	George Breck, lantern and slides		70 40
	J. C. Witter, adjustable model stands		11 05
	Keiser & Koch, 16 yards black ducking		6 90
1899.			
Jan. 5—	R. S. Kitchener, 40 copies "Nature Study" pamphlets		2 00
Feb. 28—	Alfred L. Robbins Co., 4 volt ammeters		28 00
	Riley Drug Co., 24 glass specimen jars		27 50
	Charles C. Riedy, material for museum		54 33
	M. M. Haas Co., books		81 85
	National Educational Association, 1 vol. N. E. A. Proceedings		2 00
	Library Bureau, cloth binders		21 20
	Hampton Normal and Agricultural Institute, books ..		1 50
Mar. 31—	Cherrie & Co., brass locks, etc.		40 00
April 28—	University Association, books		15 30
	M. M. Haas Co., books		5 20
	L. Callisch, museum supplies		7 45
	Publishers' Weekly, 1 index		3 69
June 2—	Burrows Bros. Co., books		19 10
	M. M. Haas Co., books		13 60
	A. W. Mumford, books		8 00
	D. Appleton, books		6 75
	C. C. Riedy, 60 slide maps for museum		25 20
	Bausch & Lomb Co., telescope eye-pieces		18 62
July 1—	G. E. Stechert, books		1 43
	Bates & Guild Co., books		9 25
	M. M. Haas Co., books		18 51
	Yawman-Erbe Manufacturing Co., card index		20 00
	Otto Krause, telescope tube		4 25
	Dodd, Mead & Co., book		3 20
		<hr/>	
Total amount expended			\$1,289 99

APPROPRIATION FOR CARE OF GROUNDS.

		<i>Receipts.</i>	
Amount of appropriation.....			\$2,500 00
Balance from forty-ninth fiscal year.....			71 40
Date of Auditing. 1898.		<i>Disbursements.</i>	
July 26—	Payroll on grounds, July, 1898.....		\$130 00
	Silas Shirley, cutting alfalfa.....		3 50
	W. G. Krieg, labor, making lawn sprinklers (40).....		44 50
	George Paull, cleaning three wells.....		30 00
	F. J. McCarley, shoeing horse.....		1 50
Sept. 3—	Payroll on grounds, August, 1898.....		145 50
	F. J. McCarley, shoeing horse.....		1 50
	George W. Derby, one horse and collar.....		46 00
	Charles C. Navlet, 4 pounds grass seed, and sprayer.....		5 50
	San José Hardware Co., hardware supplies.....		6 65
Oct. 4—	Payroll on grounds, September, 1898.....		130 00
	George H. Tay Co., pipe, fittings, etc.....		47 12
	Santa Clara Valley Mill and Lumber Co., lumber.....		11 61
	San José Awning Co., one piece canvas.....		10 50
	Louis L. Gorr, substitute engineer.....		91 66
	E. J. Natusch, 2 bales straw at 75c.....		1 50
Nov. 1—	Payroll on grounds, October, 1898.....		151 50
	F. J. McCarley, shoeing horse.....		1 50
	Farmers' Union, one plow and hardware supplies.....		25 12
	C. Toscanelle, 36 loads loam.....		18 00
	C. S. Crydenwise, one pair shafts, etc.....		2 65
	California Plaster Co., 500 pounds gypsum.....		2 50
Dec. 2—	Payroll on grounds, November, 1898.....		130 00
	Dingee & Conard Co., plants, seeds, etc.....		13 62
	Peter Henderson, plants, seeds, etc.....		13 60
	C. Toscanelle, 7 loads loam.....		5 25
1899.			
Jan. 5—	Payroll on grounds, December, 1898.....		135 00
	Mangrum & Otter, 2 blades for lawn-mower.....		15 20
	Charles C. Navlet, flower pots.....		10 10
	Farmers' Union, supplies.....		23 61
Feb. 1—	Payroll on grounds, January, 1899.....		130 00
	F. J. McCarley, shoeing horse.....		1 50
Feb. 28—	Payroll on grounds, February, 1899.....		130 50
	C. P. Bailey, 1 ton sheep manure.....		7 50
	Martin Ortego, 4 loads loam.....		4 00
	Charles C. Navlet, bluegrass seed.....		1 00
Mar. 31—	Payroll on grounds, March, 1899.....		148 50
	W. C. Krieg, 40 brass couplings.....		16 00
	Milton Campbell, hardware supplies.....		5 90
April 28—	Payroll on grounds, April, 1899.....		125 00
	H. J. Grey, repairing lawn-mower.....		12 25
	Mangrum & Otter, stone tees.....		5 15
	A. D. Daunes, 1 barrel cement.....		3 50
	M. Ortego, 2 loads gravel.....		3 00
	C. P. Bailey, 400 pounds sheep manure.....		1 50
June 2—	Payroll on grounds, May, 1899.....		144 00
	J. L. Childs, seeds and bulbs.....		4 50
	Mangrum & Otter, 500 feet garden hose.....		95 00
July 1—	Payroll on grounds, June, 1899.....		130 00
	F. J. McCarley, shoeing horse.....		1 50

1899. APPROPRIATION FOR CARE OF GROUNDS—Continued.	
July 1—A. Grenninger, one hand cart	\$25 00
Glenwood Lumber Co., lumber	19 24
James D. Miner, wire netting, etc.	24 75
Santa Clara Valley Mill and Lumber Co., lumber	40 00
J. S. Hensil, carpenter work	37 00
J. D. Kelsey, carpenter work	57 00
Total expended	\$2,427 98
Balance on hand July 1, 1899	143 42
Total	\$2,571 40

CONTINGENT FUND.

Receipts.

Balance in fund from forty-ninth fiscal year, as per last report....	\$896 23
Amount received from Training School tuitions during fiftieth fiscal year, ending June 30, 1899	1,270 65
Amount received from library fines	11 85
Amount refunded on order for books	1 20

Date of
Auditing.
1898.

Disbursements.

July 26—C. Y. Pitman, watchman, for month of July, 1898	\$40 00
Elizabeth Blasdel, incidentals	14 65
Sept. 3—Evening News, advertising, Training Department	6 00
Elizabeth Blasdel, incidentals	9 00
E. G. Northup, rent of piano, and cartage	6 50
Herald Publishing Co., advertising, Training Department	10 10
H. L. Miller, stationery	7 00
J. C. Black, sundries for Kindergarten Department	2 00
Sherman, Clay & Co., song books for Kindergarten Department...	9 13
I. Loeb & Bro., oil cloth, etc.	1 65
C. Y. Pitman, watchman, month of August, 1898	40 00
Mercury Publishing Co., advertising, Training Department	16 00
McNeil Bros., binding books	40 50
Oct. 4—C. Y. Pitman, watchman, for month of September, 1898	40 00
Elizabeth Blasdel, incidentals	27 51
C. A. Tupper, printing	17 50
J. H. Elwood, one piano stool	2 00
Samuel H. Wagner, 24 4-oz. bottles and corks	1 20
E. G. Northup, rent of piano	4 00
Sanborn, Vail & Co., pigments	16 21
Nov. 1—J. M. Pitman, expense attending Board meeting	9 75
R. E. Wilhoit, expense attending Board meeting	2 90
Col. J. E. Doolittle, expense attending Board meeting	5 58
A. H. Randall, expense attending Board meeting	9 75
C. Y. Pitman, watchman, for month of October, 1898	40 00
Elizabeth Blasdel, incidentals	17 55
C. A. Tupper, printing	9 50
Boschken Hardware Co., supplies	6 55
L. Callisch, medicines	3 45
A. Denike, tuning three pianos	7 50
John Stock Sons Co., pipe, etc.	17 81
Sunset Telephone Co., rent of telephones, etc.	11 25
E. G. Northup, rent of piano	4 00

1898.

CONTINGENT FUND—Continued.

Nov. 1—	M. M. Haas Co., subscription to daily papers.....	\$12 50
	Farmers' Union, supplies	7 93
	Milton Campbell, material and labor	34 20
	Sherman, Clay & Co., one music book	1 90
	San José Furniture Co., 2 dozen chairs, 6 stands	41 25
	San José Light and Power Co., 1 Welsbach lamp	1 50
	Santa Clara Valley Mill and Lumber Co., lumber and glass	38 21
	J. P. Jarman, painting, paper, etc.	56 76
	H. L. Miller, stationery	36 87
	H. J. Grey, repairing pump	12 25
Dec. 2—	C. Y. Pitman, watchman for month of November	40 00
	Santa Clara Valley Mill and Lumber Co., lumber	7 20
	F. L. Sheeley, painting smokestack	10 00
	Lenahan & Delaney, 25 pounds carbide, 1 can	3 15
	Boschken Hardware Co., hardware supplies	13 34
	Curtaz & Son, rent of piano	6 00
	Farmers' Union, supplies	24 94
	M. Campbell, 1 tin box	2 00
	M. Campbell, tank, bath, etc., for engine-house	19 25
	H. L. Miller, stationery	20 38
	J. J. Zingg, keys	2 85
	A. D. Daunes, 1 barrel lime	1 60
	McKee & Co., 1 barrel whiting	13 15
	Sunset Telephone Co., rent of telephone and switching	9 40
	Sanborn, Vail & Co., water-color paints	2 37
	Elizabeth Blasdel, Secretary, incidental expenses	26 00
	J. P. Jarman, framing pictures	12 00
1899.		
Jan. 5—	C. H. Ashworth, window polish, 50 cakes	2 00
	C. Y. Pitman, watchman for month of December	40 00
	Elizabeth Blasdel, Secretary, incidentals	16 35
	A. D. Daunes, fire clay, brick dust	1 88
	Boschken Hardware Co., hardware supplies	2 87
	San José Light and Power Co., gas	9 60
	Sunset Telephone Co., rent of telephone and switching	10 10
	Bertha Warren, engrossing resolutions	10 00
	Santa Clara Valley Mill and Lumber Co., lumber	8 25
	H. L. Miller, stationery	4 55
	Foss & Hicks, application and bonds, releasing alcohol	5 50
	San José Furniture Co., recovering table	3 00
	O. A. Hale & Co., sheeting	2 70
Jan. 27—	Dr. Eli McClish, address to graduating class	15 00
Feb. 1—	Mangrum & Otter, labor, setting up stove, and sheets of tin	2 55
	Boschken Hardware Co., hardware supplies	7 15
	H. Hart, 1 sack fire clay	3 60
	Farmers' Union, coal oil, etc.	2 05
	J. P. Jarman, charcoal, putty, and paint	2 40
	Bertha Warren, lettering diplomas	13 65
	George H. Tay Co., boiler tubes, etc.	117 70
	H. L. Miller, stationery	13 06
	F. E. Smith, rewiring clocks	5 00
	San José Light and Power Co., electric construction	35 00
	Sunset Telephone Co., rent of telephone and switching	11 20
	San José Light and Power Co., electric lights	2 00
	C. Y. Pitman, watchman for month of January	40 00
	Benj. Curtaz & Son, rent of piano	6 00
	L. Callisch, medicine for Preceptress	1 00
	Bosqui Printing and Engraving Co., 30 diplomas	24 90

1899.

CONTINGENT FUND—Continued.

Feb. 1—	Santa Clara Valley Mill and Lumber Co., lumber and glass	\$7 32
	San José Light and Power Co., gas	14 35
	Elizabeth Blasdel, Secretary, incidental expenses	20 65
	C. A. Tupper, printing	9 00
	George Breck, 1 lens for lantern	1 50
	St. James Hotel, entertainment trustees	6 00
Feb. 28—	R. E. Wilhoit, expense attending Board meeting January 31	5 00
	G. W. Pierce, expense attending Board meeting February 29	13 50
	Garden City Bank, printing 1,050 revenue stamps on checks	23 00
	Elizabeth Blasdel, incidental expenses	11 92
	C. C. Navlet, 4 goldfish and food	1 15
	Sunset Telephone Co., rent of telephone and switching	14 85
	H. L. Miller, stationery	36 81
	McNeil Bros., bookbinding	39 00
	Curtaz & Son, rent of piano	3 00
	H. L. Gray, cutting boiler tubes	2 05
	Riley Drug Co., medicines for Preceptress	1 20
	McNeil Bros., printing billheads, etc.	6 20
Mar. 17—	C. C. Riedy, museum supplies	21 00
	Bosqui Printing and Engraving Co., 75 diplomas on parchment ..	62 25
Mar. 22—	Elizabeth Blasdel, Secretary, incidental expenses	18 60
June 2—	George Bogard, rebate on tuition overpaid	1 50
July 1—	San José Light and Power Co., electric light power for two months ..	2 00
	Keiser & Koch, 4 yards ducking for curtains	2 00
	Foss & Hicks, releases of alcohol bond	2 50
	J. J. Zingg, keys, etc.	2 50
	Otto Krause, plumbing, etc.	1 50
	Bausch & Lomb Co., 2 shades for telescopes	1 53
	L. Lion & Sons Co., window shades	1 80
	M. M. Haas Co., kindergarten supplies	1 30
	Elizabeth Blasdel, Secretary, incidental expenses	14 77
	Sunset Telephone Co., rent of telephone and switching	12 45
	Total amount expended	\$1,694 80
	Balance in fund June 30, 1899	485 13
	Total	\$2,179 93

SUMMARY OF REPORT.

Total income, fiftieth fiscal year	\$58,489 18
Paid for salaries of officers, teachers, janitors, engineer, and watchman	\$48,141 53
Paid for books and periodicals	600 69
Paid for stationery	214 76
Paid for furniture	592 40
Paid for apparatus	615 59
Paid for fuel and gas	1,858 65
Paid for general supplies	852 91
Paid for repairs and improvements	613 28
Paid for miscellaneous expenses	1,345 50
Paid for incidental expenses	177 00
Paid for telephone and service	69 25
Paid for expenses of trustees attending meetings	52 48
Paid for museum expenses	107 98
Paid for rent of one piano and cartage	29 50

SUMMARY OF REPORT—Continued.

Paid for advertising	\$32 10
Paid for salaries of gardeners and extra labor	1,727 50
Paid for general expenses for care of grounds	520 57
Paid for miscellaneous expenses on grounds	88 25
Total expended	\$57,639 94
Balance salaries appropriation	220 69
Balance grounds appropriation	143 42
Balance contingent fund	485 13
Total	\$58,489 18

FOR THE FIFTY-FIRST FISCAL YEAR, ENDING JUNE 30, 1900.

APPROPRIATION FOR SUPPLIES.

Date of Auditing. 1899.	<i>Receipts.</i>	
	Amount of appropriation	\$4,000 00
	<i>Disbursements.</i>	
Aug. 1—	H. L. Miller, stationery	1 85
	San José Light and Power Co., electric light	1 00
	Palace Crockery Co., 2 cuspidors	3 00
	Sunset Telephone Co.	4 50
	Elizabeth Blasdel, Secretary, incidentals	6 45
	L. Lion Co., carpet, etc.	61 15
	Frank Short, traveling expenses attending Board meeting	43 50
	George W. Pierce, traveling expenses attending Board meeting	27 00
	F. W. Leavitt, traveling expenses attending Board meeting	39 10
	M. Lenzen & Son, papering office	20 00
Sept. 2—	J. A. Belloli, 3½ cords of wood	20 12
	M. M. Haas Co., stationery	39 70
	Fred M. Stern, supplies, dusters, brushes, etc.	51 70
	Santa Clara Valley Mill and Lumber Co., lumber	19 31
	J. C. Black & Son, supplies	13 75
	San José Light and Power Co., electric light	2 00
	Andrew P. Hill, one half-tone cut of building	10 88
	Sunset Telephone Co.	6 15
	George B. McKee & Co., 2 lights, glass	2 75
	Elizabeth Blasdel, incidental account	16 60
	Evening News, advertising	5 00
	Mercury Publishing Co., advertising	11 65
Sept. 30—	San José Light and Power Co., gas	11 80
	George A. Steiger, modeling clay	8 25
	M. M. Haas Co., stationery	29 85
	Chas. A. Barker, coal	17 45
	Sunset Telephone Co.	11 55
	Evening News, advertising	5 00
	L. Lion & Sons, 20 yards burlap	5 00
	J. I. Burnham, keys	1 00
	Sanborn, Vail & Co., paints	8 40
	Santa Clara Valley Mill and Lumber Co., one tray of lumber	14 38
	M. Lenzen & Son, oiling Assembly Hall floor	74 77
	John Stock Sons Co., supplies for engine, etc.	68 33

1899.

APPROPRIATION FOR SUPPLIES—Continued.

Sept. 30—	Elizabeth Blasdel, Secretary, incidental account.....	\$9 50
	F. W. Leavitt, expenses attending Board meeting.....	3 40
	George W. Pierce, expenses attending Board meeting.....	14 75
	Frank H. Short, expenses attending Board meeting.....	21 75
Oct. 31—	Chas. A. Barker, coal.....	83 75
	San José Foundry, boiler grates, repairs.....	91 66
	M. M. Haas Co., stationery.....	25 20
	Santa Clara Valley Mill and Lumber Co., lumber.....	17 25
	J. P. Jarman, painting floor.....	8 00
	Sunset Telephone Co.....	7 95
	J. C. Black & Son, waste-baskets, etc.....	4 55
	Farmers' Union, supplies, compound, coal oil, etc.....	4 55
	Herald Publishing Co., advertising.....	4 00
	Mercury Publishing Co., advertising.....	1 00
	George Denne, hanging three casts.....	2 70
Oct. 31—	W. E. Sangster, three waste-baskets.....	1 50
	L. Lion & Sons, one table.....	1 00
	Elizabeth Blasdel, Secretary, incidentals.....	14 23
Nov. 28—	C. A. Barker, coal.....	343 55
	R. N. Nason & Co., oil for engine.....	50 44
	San José Light and Power Co., gas (two months).....	20 65
	Elizabeth Blasdel, Secretary, incidentals.....	17 00
	John Stock Sons Co., supplies, gauge glasses, etc.....	4 35
	Santa Clara Valley Mill and Lumber Co., lumber, etc.....	7 05
	James D. Miner, hardware supplies.....	5 55
	A. P. Hill, unmounted photographs.....	1 70
	Sunset Telephone Co.....	6 25
	George B. McKee & Co., lights of glass, etc.....	5 65
	Moise-Klinkner Co., rubber dates.....	1 00
	Riley Drug Co., supplies for Preceptress.....	3 30
	M. M. Haas Co., stationery.....	21 40
	H. L. Miller, stationery.....	5 40
	San José Light and Power Co., electric light power.....	3 00
1900.		
Jan. 4—	Charles A. Barker, coal.....	324 30
	Glenwood Lumber Co., one platform for hall.....	40 00
	M. M. Haas Co., stationery.....	12 50
	Sanborn, Vail & Co., paints.....	8 30
	Sunset Telephone Co.....	6 20
	Frank Smith, repairing clock.....	2 75
	Sperry Flour Co., weighing coal.....	2 25
	James D. Miner, supplies.....	2 00
	Santa Clara Valley Mill and Lumber Co., lantern slide boxes, etc.....	7 75
	John Stock Sons Co., valves for engine, etc.....	2 50
	Elizabeth Blasdel, Secretary, incidentals.....	7 34
Feb. 3—	Charles A. Barker, coal.....	262 40
	J. A. Belloli, 9 cords of wood.....	51 75
	M. M. Haas Co., stationery.....	40 65
	San José Light and Power Co., gas (two months).....	21 00
	Bertha Warren, lettering diplomas.....	20 30
	Elizabeth Blasdel, Secretary, incidentals.....	10 75
	Fred. M. Stern, dusters, brushes.....	8 25
	Sunset Telephone Co.....	6 30
	San José Electrical Works, recharging batteries.....	4 35
	James D. Miner, locks, etc.....	2 05
	Sperry Flour Co., weighing coal.....	3 50
	John Stock Sons Co., valves, etc.....	3 20
	San José Light and Power Co., electric light power.....	2 00

1900. APPROPRIATION FOR SUPPLIES—Continued.

Mar.	2—M. M. Haas Co., stationery	\$24 00
	Charles A. Barker, coal	13 40
	Sunset Telephone Co.	5 75
	George W. Pierce, expenses attending Board meeting	14 05
	Elizabeth Blasdel, Secretary, incidentals	12 41
	Elizabeth Blasdel, Secretary, cash advanced cooking class	3 55
	San José Furniture Co., window shades	3 00
	H. L. Miller, 5 packages of paper	2 00
	San José Light and Power Co., electric light power	1 00
	Enid Kinney, art models	10 45
	Santa Clara Valley Mill and Lumber Co., lumber	17 51
	James D. Miner, hardware supplies	8 65
	M. Lenzen & Son, painting platform, etc.	3 10
Apr.	2—Charles A. Barker, coal	256 74
	San José Light and Power Co., gas (two months)	22 40
	Garratt & Co., valves, etc.	24 00
	M. M. Haas Co., stationery	29 25
	George W. Pierce, expenses attending Board meeting	11 70
	Elizabeth Blasdel, Secretary, incidentals	7 65
	George B. May, one cord wood	9 00
	Sunset Telephone Co.	4 85
	H. L. Miller, stationery	3 16
	George Denne, hanging three casts	2 80
	James D. Miner, locks, screws, etc.	2 20
	Riley Drug Co., supplies for Preceptress	1 75
	Sanborn, Vail & Co., water-color paints	1 95
	San José Light and Power Co., electric light	1 00
May	2—Charles A. Barker, coal	324 83
	M. M. Haas Co., stationery	29 65
	Elizabeth Blasdel, Secretary, incidentals	10 08
	George B. McKee, 2 lights, glass	7 00
	Farmers' Union, 1 floor brush	4 50
	San José Light and Power Co., gas	5 60
	Sanborn, Vail & Co., water colors	2 40
	San José Light and Power Co., electric light	1 00
	J. C. Black & Son, 3 lamps, etc.	11 65
June	4—M. M. Haas Co., stationery	21 85
	Fred M. Stern, 5 dusters	6 25
	George W. Pierce, expenses attending Board meeting	29 35
	Elizabeth Blasdel, Secretary, cash advanced cooking class	2 25
	Elizabeth Blasdel, Secretary, incidentals	5 50
	Frank H. Short, expenses attending Board meeting	29 05
	Sunset Telephone Co. (2 months)	10 15
	George B. McKee & Co., lights of glass	10 00
	San José Light and Power Co., gas	11 55
	Farmers' Union, compound, gasoline	3 25
	H. L. Miller, stationery	3 17
	Frank E. Smith, repairing clocks, etc.	3 00
	Riley Drug Co., supplies	2 10
	San José Light and Power Co., electric light power	1 00
	H. C. Brown, expenses attending Board meeting	3 00
June	28—Frank H. Short, expenses attending Board meeting	24 80
	George W. Pierce, expenses attending Board meeting	13 10
	F. W. Leavitt, expenses attending Board meeting	27 60
	Elizabeth Blasdel, Secretary, incidentals	16 10
	M. M. Haas Co., stationery	26 53
	Bertha Warren, lettering diplomas	39 55

1900.

APPROPRIATION FOR SUPPLIES—Continued.

June 28—Elizabeth Blasdel, Secretary, cash advanced cooking class	\$5 60
M. M. Haas Co., 1 flag	16 00
F. E. Smith, moving clock in hall, etc.	3 00
Emil Marsky, 30 diploma tubes	1 50
Sunset Telephone Co.	7 60
James D. Miner, hardware supplies	9 95
Aug. 30—San José Foundry, repairing pumps	56 75
M. Lenzen, boiled oil, etc.	5 55
M. M. Haas Co., stationery	1 70
John Stock Sons Co., washers, etc.	3 15
Sunset Telephone Co.	50
Total expended	\$3,622 84
Balance forward to fifty-second fiscal year.	377 17
Total	\$4,000 00

APPROPRIATION FOR SALARIES.

Receipts.

Amount of appropriation for salaries of officers, teachers and employés of the State Normal School at San José, fifty-first fiscal year

\$47,000 00Date of
Auditing.*Disbursements.*

1899.

Aug. 1—Paid salaries for July, 1899	\$3,727 44
Sept. 2—Paid salaries for August, 1899	3,719 11
Sept. 30—Paid salaries for September, 1899	3,915 36
Oct. 31—Paid salaries for October, 1899	3,960 77
Nov. 28—Paid salaries for November, 1899	3,955 77

1900.

Jan. 4—Paid salaries for December, 1899	3,955 77
Feb. 3—Paid salaries for January, 1900	3,960 77
Mar. 2—Paid salaries for February, 1900	3,958 27
April 2—Paid salaries for March, 1900	3,955 77
May 2—Paid salaries for April, 1900	3,955 77
June 4—Paid salaries for May, 1900	3,955 77
June 28—Paid salaries for June, 1900	3,955 77

Total expended	\$46,976 34
Balance on hand July 1, 1900	23 66
Total	\$47,000 00

APPROPRIATION FOR LIBRARY, MUSEUM, AND SCIENTIFIC APPARATUS.

		<i>Receipts.</i>	
Date of Auditing.	Amount of appropriation.....		
1899.	<i>Disbursements.</i>		
Sept. 30—	M. M. Haas Co., one neostyle.....	\$17	50
	L. P. McCarty, one Statistician.....	3	50
	M. M. Haas Co., books, magazines.....	8	55
	Charles C. Riedy, zoölogical apparatus.....	26	55
	Riley Drug Co., 3 dozen boxes.....	1	25
	Ginn & Co., Harvard Geog. models.....	12	00
	S. H. Wagener, test tubes, etc.....	5	54
	Jas. D. Miner, 3 tape-lines.....	5	25
Oct. 31—	C. C. Riedy, 10 pounds formalin.....	3	50
	Geo. Kanzee, lantern slides.....	33	40
	Leary, Stuart & Co., library books.....	10	68
	M. M. Haas Co., periodicals.....	86	10
	John Taylor & Co., physical apparatus.....	49	39
Nov. 28—	Edwin E. Howell, one relief map.....	40	00
	Jas. D. Miner, manual training tools.....	32	38
	M. M. Haas Co., 119 lantern slides.....	47	60
	Santa Clara Valley Mill and Lumber Co., 36 sand trays.....	14	40
	J. Riechers & Son, material and labor, making one concrete pond for Zoölogical laboratory.....	18	00
	M. M. Haas Co., library books.....	165	61
1900.			
Mar. 2—	M. M. Haas Co., periodicals.....	36	15
	John Taylor & Co., 4 spools wire.....	1	39
April 2—	M. M. Haas Co., library books.....	135	13
May 2—	C. C. Riedy, museum supplies.....	24	65
	M. M. Haas Co., library books.....	23	17
	Bausch & Lomb, telescope objectives.....	19	80
June 4—	M. M. Haas Co., library books.....	60	60
	Library Bureau, cloth binders.....	20	61
	National Educational Association, one vol. N. E. A. Proceedings.....	2	00
	Educational Review Publishing Co., 2 copies Review.....	1	00
June 28—	M. M. Haas Co., library books.....	46	90
Aug. 31—	Bausch & Lomb Optical Co., microscopes.....	42	75
Total expended.....		\$995	35
Balance forward to fifty-second fiscal year.....		4	65
Total.....		\$1,000	00

APPROPRIATION FOR CARE OF GROUNDS.

		<i>Receipts.</i>	
Amount of appropriation			\$2,000 00
Date of Auditing. 1899.		<i>Disbursements.</i>	
Aug. 1—	Payroll on grounds, July, 1899.....		\$139 00
	F. J. McCarley, shoeing horse.....		1 50
	James D. Miner, garden implements.....		3 00
Sept. 2—	Payroll for August, 1899		135 00
	James D. Miner, supplies		10 05
Sept. 30—	Payroll for September, 1899		130 00
	A. D. Daunes, firebrick, etc.		26 10
	James D. Miner, hardware supplies.....		4 40
Oct. 31—	Payroll on grounds, October, 1899.....		130 00
	A. Grenninger, shafts for cart and repairs		29 75
	James D. Miner, supplies.....		6 70
	Fred M. Stern, repairs to harness		3 75
	S. P. Siddon, seven loads tanbark.....		5 25
	John Stock Sons Co., hardware supplies		5 90
Nov. 28—	Payroll for November, 1899.....		130 00
	J. C. Black & Son, barley		1 55
1900.			
Jan. 4—	Payroll for December, 1899.....		130 00
	Fred M. Stern, supplies		3 00
	M. Gregg, shoeing horse		1 50
	H. Hart & Co., one barrel lime.....		1 25
Feb. 3—	Payroll on grounds, January, 1900		135 00
	J. C. Black, barley, supplies		9 90
	Santa Clara Valley Mill and Lumber Co., lumber for grounds.....		2 32
Mar. 2—	Payroll on grounds, February, 1900		120 00
Apr. 2—	Payroll on grounds, March, 1900.....		135 00
May 2—	Payroll on grounds, April, 1900		125 00
	George A. Steiger, sewer pipe, etc.		8 38
	John Stock Sons Co., supplies.....		4 50
	California Nursery Co., two small trees		2 00
	Fred M. Stern, one blacksnake.....		1 50
	J. C. Black & Son, barley, etc.		5 20
June 4—	Payroll on grounds, May, 1900		135 00
	John Stock Sons Co., hardware supplies		16 41
	Santa Clara Valley Mill and Lumber Co., circles for sprinklers ...		4 55
	W. C. Krieg, making sprinklers—elbows.....		24 30
	San José Foundry, boiler tubes, etc.		97 85
	John Stock Sons Co, 500 feet of hose		85 00
June 28—	Payroll on grounds, June, 1900.....		130 00
Total expended			\$1,939 61
Balance on hand July 1, 1900.....			60 39
Total			\$2,000 00

CONTINGENT FUND.

Receipts.

Balance in fund from fiftieth fiscal year	\$485 13
Amount received for library fines	10 90
Amount received for duplicate diploma fees	3 00
Amount received for gas used in hall	7 20
Amount received for breakage, etc	2 30
Total collected	<u>\$508 53</u>

Date of
Auditing.
1899.

Disbursements.

Oct. 6—A. R. Denike, to balance due on claim for one baby grand piano..	\$178 30
Sept. 28—L. L. Alexander, services as stenographer at meeting of Trustees..	30 00
San José Light and Power Co., electric light power	1 00
Sunset Telephone Co.	2 55
Sunset Telephone Co., extra switch	40
Conlon & Shipman, painting desk	6 00
Total expended	<u>\$218 25</u>
Balance	290 28
Total	<u>\$508 53</u>

APPROPRIATION FOR PAINTING BUILDINGS.

Receipts.

Amount of appropriation	<u>\$1,500 00</u>
-------------------------------	-------------------

Date of
Auditing.
1899.

Disbursements.

Oct. 31—Conlon & Shipman, on account painting Normal School buildings, as per contract on file	\$750 00
Total expended	<u>\$750 00</u>
Balance July 1, 1900	750 00
Total	<u>\$1,500 00</u>

SPECIAL APPROPRIATION FOR RE-PIPING BUILDING FOR FIRE AND
WATER PURPOSES.*Receipts.*

Amount of appropriation	<u>\$2,000 00</u>
-------------------------------	-------------------

Date of
Auditing.
1899.

Disbursements.

Sept. 3—John Stock Sons Co., piping system, hose reels, etc., as per contract on file	\$1,790 00
Jacob Lenzen & Son, making drawings and superintending placing of piping system in buildings	89 50
Total expended	<u>\$1,879 50</u>
Balance July 1, 1900	120 50
Total	<u>\$2,000 00</u>

SPECIAL APPROPRIATION FOR RE-SEATING ASSEMBLY HALL.

Receipts.

Date of Auditing. 1899.	Amount of appropriation	\$3,000 00
<i>Disbursements.</i>		
Nov. 3—C. F. Weber & Co., seating Assembly Hall with 746 opera chairs, as per contract		\$2,909 40
1900.		
Jan. 4—Jacob Lenzen & Son, preparing drawings and superintending the placing of chairs in hall		90 60
	Total expended	\$3,000 00

SUMMARY OF REPORT.

Total income, fifty-first fiscal year	\$61,008 53
Paid for salaries of teachers, officers, janitors, engineer, and watchman	\$46,976 34
Paid for books and periodicals	600 00
Paid for stationery	317 86
Paid for furniture	3,178 30
Paid for apparatus	370 70
Paid for fuel and gas	1,812 29
Paid for general supplies	561 62
Paid for repairs	256 28
Paid for miscellaneous expenses	198 28
Paid for incidental expenses	133 61
Paid for telephone and service	80 70
Paid for expenses of Trustees attending meetings	302 15
Paid for museum expenses	24 65
Paid for salaries of gardeners and extra labor	1,574 00
Paid for supplies and general expenses for care of grounds	365 61
Paid for painting school buildings	750 00
Paid for repiping buildings for fire and water purposes	1,879 50
Total expended	\$59,381 89
Balance salaries appropriation	23 66
Balance grounds appropriation	60 39
Balance appropriation for painting buildings	750 00
Balance contingent fund	290 28
Balance appropriation for repiping buildings	120 50
Balance library, apparatus, and museum appropriation	4 65
Balance supplies appropriation	377 16
Total	\$61,008 53

REPORT OF PRESIDENT.

SAN JOSÉ, CAL., October, 1900.

To the Honorable Board of Trustees of the State Normal School, San José:

GENTLEMEN: I have the honor of submitting to you two reports of this school, one for the year ending June 30, 1899, and the other for the year ending June 30, 1900.

REPORT ENDING JUNE, 1899.

Members of the Faculty:

Number employed in Normal Department.....	23
Number employed in Training Department.....	4
Total	27

Enrollment of Students:

Number admitted upon High School diplomas.....	70
Number admitted upon Grammar School diplomas.....	81
Number of teachers and irregular students admitted	21
Total enrollment of new students.....	172
Total enrollment of all students	687

Training Department Enrollment:

Number admitted to Primary Department.....	76
Number admitted to Secondary Department.....	26
Number admitted to Grammar Department.....	68
Total	170

In January, 1899, the following students were recommended by the Faculty for graduation:

Bailey, Fred T.	Hawkins, Effie I.	Parkison, George D.
Benson, Marvin L.	Hill, Elsie W.	Plumb, Alma E.
Booker, Winifred C.	Hood, Blanche	Price, Susie Verne
Bowsher, Mabel G.	Hough, Ernest Ellsworth	Pyle, Ethel May
Carnes, M. Janie	Humphreys, May E.	Ralston, Yosemite
Cuthbertson, Jessie	Hyde, Edna A.	Sangster, Laura C.
Daly, Ysibel I.	Kelly, Lena M.	Schultz, C. Helene
Dawley, Emma	Marcus, Helen Emma	Sturtevant, Hugh Francis
Eardley, Olive A.	Martin, Maude M.	Sullivan, Winifred H.
Edwards, Edith V.	McKanny, Harry G.	Wagner, Nettie E.
Ehlers, Olga M.	Molfino, Theresa K.	Wood, Jessie D.
Fry, Blanche H.	Nelson, Ida Mae	

In June, 1899, the following students were recommended by the Faculty for graduation:

Alexander, Carrie T.	Emerson, May R.	Prusch, Matilda
Balaam, Della M.	Fablinger, Sarah	Read, Maud E.
Bancroft, Walter G.	Falk, Bessie	Robinson, Gertrude E.
Basse, Emma	Fisher, Viola D.	Rosendahl, Edith H.
Beekman, Grace H.	Freeman, Ethel M.	Ross, Edith L.
Benson, Dorothy B.	Glubetich, Kathrynne	Rucker, Ada V.
Berg, Nelle M.	Gracy, Gertrude	Shepard, Alice M.
Bibbins, Pearl	Gray, Mrs. Bertha L.	Snow, Ernest D.
Bird, May Frances	Griffith, Mary T.	Spencer, Elizabeth E.
Blanchard, Sallie	Grozelier, Louise J.	Spooner, Susie M. B.
Boyce, Clara E.	Haggerty, Louise	Steen, Myrtle
Buchanan, May	Hale, Myrtle M.	Sullivan, Frances E.
Burnett, Maude E.	Halsey, Laura Alice	Tainton, Lucy J.
Burtscher, Theresa	Hamilton, Thana B.	Taylor, Elizabeth J.
Busey, Lenore	Henderson, Ila L.	Thompson, Mabel A.
Butler, Robert	Hitzman, Alethea	Toy, Harriet
Clement, Edith	Inglis, Mary E.	Urquhart, Bessie C.
Connelly, Alice B.	Johnson, Elvira V.	Weymouth, Eva L.
Connelly, Dott C.	Keniston, Lucia N.	White, Edna B.
Corkery, Mary T.	Kimball, Helen M.	Williams, M. Louise
Corpstein, Susie A.	McMahon, Nellie	Wood, Jessie P.
Cuthbertson, Grace D.	Mueller, Ella R.	
Dill, Dora P.	Mumma, Edith O.	
Donlon, William	Ortley, Harriet R.	
Douglas, Charlotte Isabel	Parker, Louise E.	
Doyle, Una B.	Power, Frances J.	
Dudley, Flora H.	Preston, Isabel	

Kindergarten Department.

Farney, Julia
Kooser, Emma

REPORT ENDING JUNE, 1900.

Members of the Faculty:

Number employed in Normal Department.....	27
Number employed in Training Department.....	4

Total 31

Enrollment of Students:

Number admitted from Training Department	107
Number admitted from High Schools	286
Number admitted on County Grammar School diplomas	301
Number admitted on teachers' certificates and examination.....	74

Total enrollment..... 768

Enrollment in Training Department:

Number enrolled in Primary Grade.....	129
Number enrolled in Intermediate Grades.....	56
Number admitted to Grammar Grades.....	86

Total enrollment..... 271

In January, 1900, the following students were recommended by the Faculty for graduation:

Abbott, Clara Frances	Higby, Ruth Marion	Plumb, Edith R.
Adams, Annie Louise	Hopkins, Helen E.	Porter, Lucy M.
Andreassen, J. Dora C.	Jackson, Ida	Ransom, M. Helen
Broderick, Elena	Jamison, Beatrice L.	Rathbone, L. Minnie
Burchard, Marcie M.	Jones, Ella M.	Rattan, Georgia H. K.
Byrd, P. Wightman	Lawler, Esther T.	Rodgers, Clara
Dam, Cora B.	Lawrence, Ora	Sobey, Jessie G.
Drury, Eliza M.	Lemon, Addie M.	Steen, Bella
Drury, Louise	Lewis, Gertrude H.	Steele, Gertrude A.
Duff, Mary B.	Livingston, Mattie	Stewart, Martha A.
Estabrook, Lois M.	Mansfield, Laura W.	Storrie, Sallie H.
Fletcher, May A.	Marr, Grace N.	Sweeney, Mary A.
Frazer, Hugh L.	Nohrden, Ida A.	Uncapher, Mary E.
Fry, Cora Bella	Northup, Grace	Veatch, Minnie B.
Gass, Ara Lula	Noyes, Nella M.	Weinert, Maggie E.
Goin, Elma Edwards	O'Connell, Margaret G.	Wilson, Mary Estelle
Hamble, Gertrude	Parlier, Mary Ada	Zoffman, Christine S.
Hathaway, Laura L.	Perdue, Cornelia	Zumwalt, Edith
Helwig, J. Alice		

In June, 1900, the following students were recommended by the Faculty for graduation:

Applegate, Bessie Bell	Emery, Frances Evans	Metzger, Artus
Arnold, Mrs. Medora	Estes, Frederick Raymond	Morrison, Anna E.
Aull, Laura	Estes, Miriam A.	Mouron, Otto Julius
Aulman, Della	Ferguson, Isabel N.	Murphey, Ada Florence
Aulman, Mona	Floyd, Selina G.	Murphy May Bell
Barnett, Minnie W.	Fobes, Maud Marion	Ney, Clara Blake
Bell, Estelle M.	French, Beatrice R.	Nickerson, Mabel E.
Bennetts, Anne Oliver	French, Mary Arthur	Noble, Emma
Bertram, Lillian H.	Funk, A. Maud	Nyman, Charlotte Ada
Bishop, Grace Leona	Goodman, Julia T.	Oliver, Edith Bernice
Blacow, Blanche Ethel	Hardy, Anna K.	Paul, Esther May
Braly, Edith	Hewlett, Nettie Aurilla	Peckham, Gertrude C.
Brinkman, Ella N.	Hinds, Annie Louise	Phoenix, Hattie B.
Brok, Annie J.	Huffman, Nina L.	Polson, Anna
Brown, Ruby Hamlin	Huston, Ora Mae	Prior, Maud M.
Butler, Annie M.	Inglis, Louise A.	Pyle, Belle V.
Caldwell, A. Arthur	Kelley John L.	Ralston, Dollie Minta
Carroll, Mary Toanna	Kersell, Isabell M.	Rasmussen, Marie Christine
Calglessner, Clara M.	King, Winifred Cliff	Raymond, Ruth
Chappell, June Swain	Klein, Marie George	Reardon, Catherine C. E.
Charlson, Josephine S.	Kottinger, Edward Wesley	Reardon, Elizabeth Mary
Christman, Alva Florence	Lamb, Esther May	Reynolds, Kenneth F.
Claffey, Anna Loretta	Lawrence, Jane A.	Rhodes, Mary Lucretia A.
Cox, Emma Anderson	Leonard, Joseph Flint	Richardson, Lucy E.
Crawford, Gertrude	Lichens, May	Roll, Ella L.
Dimon, Julia Lucile	Martin, Edith Levenia	Rose, Louise C.
Dimon, Mabel Clare	Maus, Frank Gearhart	Sargent, Elizabeth May
Drew, Julia A.	McBride, Annie L.	Schweyer, Ilma
Dumouriez, Lena	McKinney, Lois Bessie	Simon, Erma Irene
Edwards, Carolyn Z.	McMillin, Ida P.	Spaulding, Clara M.
Ehrlich, Rose Helen	McNary, Annie L.	Spedden, Maude E.

Stephens, Olive May E.	Turner, Grace M.	Wieland, Mrs. Maud Helen
Stidston, Ethel	Turner, Frances E.	Woodsum, Maude Alice
Telfer, Gavin James	Ulrici, Walter Ernest	Wunderlich, Lulu Evelyn
Tindell, Emma Edna	Vestal, Laura Imogen	Young, Helen Gertrude
Tracy, Henry H.	Wagner, Daisy Arvilla	

The above extracts are taken from the reports of this State Normal School for the years ending June, 1899, and June, 1900.

The two great needs of this Normal School at this time are a library building and a gymnasium.

Respectfully submitted.

MORRIS ELMER DAILEY,
President State Normal School, San José.

REPORT OF TRUSTEES

OF THE

STATE NORMAL SCHOOL

AT CHICO,

FOR THE

FIFTY-THIRD FISCAL YEAR.



SACRAMENTO:

A. J. JOHNSTON, : : : : SUPERINTENDENT STATE PRINTING.

1902.

REPORT OF BOARD OF TRUSTEES.

CHICO, August 21, 1902.

To his Excellency HENRY T. GAGE, *Governor:*

SIR: We herewith submit, for the State Normal School under our charge, the following financial summaries for the fifty-third fiscal year, ending June 30, 1902, together with a copy of the report of the President of the Faculty upon the progress and needs of the institution.

In submitting this report, we beg leave to call attention to the fact that, during its thirteen years of service, this school has come to play a very important part in the educational development of Northern California. It has contributed extensively to its teaching force and has indirectly been shaping its educational ideals. Yet it is true that its material equipment for these desirable ends falls behind that of at least three other schools of the State. It would seem that this school should not only represent as strong work as others in the departments it is now able to maintain (which it does), but it should also be able to present as strong work in all lines represented by other schools. At present, for example, this institution is not equipped to do manual training or physical culture. It is to be hoped that another Legislature will see fit to permit the repair and enlargement of this school in needed lines by special appropriation.

F. C. LUSK,

Chairman of the Board of Trustees.

C. C. VAN LIEW, Secretary.

SUMMARY OF EXPENSES FOR FIFTY-THIRD FISCAL YEAR.

SUPPORT FUND.

Receipts	\$2,000 00	
Disbursements		\$1,998 15
Balance		1 85
	<u>\$2,000 00</u>	<u>\$2,000 00</u>

LIBRARY FUND.

Receipts	\$500 00	
Disbursements		\$492 68
Balance		7 32
	<u>\$500 00</u>	<u>\$500 00</u>

SALARY FUND.

Receipts	\$28,000 00	
Disbursements		\$27,461 66
Balance		538 34
	<u>\$28,000 00</u>	<u>\$28,000 00</u>

GROUNDS FUND.

Receipts	\$1,000 00	
Disbursements		\$959 95
Balance		40 05
	<u>\$1,000 00</u>	<u>\$1,000 00</u>

CONTINGENT FUND.

Balance from fifty-second fiscal year.....	\$352 25	
Receipts	1,323 05	
Disbursements		\$1,455 14
Balance		220 16
	<u>\$1,675 30</u>	<u>\$1,675 30</u>

REPORT OF PRESIDENT.

To the Honorable Board of Trustees of the California State Normal School at Chico:

GENTLEMEN: I submit herewith the thirteenth annual circular of this institution, the list of students in attendance during the terms of 1901-2, some report of progress during the same time, and certain recommendations touching our most immediate needs of improvement.

The total attendance during the past year has been 369, of which 67, or 18 per cent, were boys, and 302 girls, the ratio of the former to the latter being 1 to 5. Distributed by counties, the attendance has been as follows: Butte, 198; Shasta, 28; Siskiyou, 28; Tehama, 16; Colusa, 15; Sacramento, 13; Sutter, 11; Glenn, 8; Yuba, 8; Placer, 5; Amador, 4; Napa, 3; Santa Clara, 3; Solano, 3; Modoc, 2; Sonoma, 2; San Francisco, 2; Yolo, 2; Alameda, El Dorado, Nevada, Plumas, Sierra, San Joaquin, San Bernardino, Santa Cruz, San Diego, and Stanislaus, each 1. The States of Colorado, Wisconsin, and Texas each contributed 1, Nevada 2, and Oregon 3. This shows the total attendance to have been larger by 25 than last year, although our standard has unquestionably been advancing. As usual, Butte County leads very greatly; but the coming year will probably witness a great falling off in the attendance from Butte, owing to the institution of the local high school, which will, it is hoped, relieve the Normal of many students who are unfitted for its work and at the same time offer them a secondary education more nearly suited to their needs and purposes in life. Entrance on Northern California high school credentials is steadily increasing.

We graduate this year 41 students—6 boys and 35 girls. The distribution by counties is as follows: Butte, 16; Siskiyou, 6; Sutter, 3; Tehama, 3; Glenn, 2; Placer, 2; Shasta, 2; Solano, 2; Colusa, El Dorado, Modoc, and Yuba, each 1; and Wisconsin, 1. One of the graduates also receives the Kindergarten diploma.

The number of graduates has fallen off during the past three years, owing, we feel, to the more strictly professional standard now being maintained.

The total attendance in the Training School has been 297, or 119 boys and 178 girls. The distribution by departments has been:

Kindergarten.....	15 boys;	21 girls;	Total, 36
Primary	37 "	54 "	" 91
Grammar, including Ninth Grade	61 "	91 "	" 152
High School.....	6 "	12 "	" 18

The income to our Contingent Fund from Training School tuition is \$947.25. In addition to this, \$274.50 was collected for the purpose of providing certain students with instruction in Latin. Of this amount, \$270 was paid for that purpose and the balance turned into the Contingent Fund. This special teacher will be dispensed with the coming year, and no work undertaken in the Training School beyond legitimate ninth grade work. The presence of a local high school will make this readily possible. There should be no mistaking the attitude of this Normal School toward the new high school. We must be found liberal and helpful in every way possible, especially in so far as liberality and helpfulness may be furthered by strict attention to our own business as a State and professional institution.

With difficulty we shall manage to come within our appropriations for the present two fiscal years, and at the same time make some needful repairs and improvements.

I am well satisfied with the changes in the faculty and the consequent rearrangement of work which have been in effect the past year. Miss Swain is very rapidly bringing the department of art and handicraft up to date, and another year's experience will have rendered her work worthy of a very honorable place among Normal School courses of this kind. Mr. Adams returned to us after a year's leave of absence, not only a more thorough specialist, but also full of ideas and enthusiasm on general educational themes that have been an inspiration to the faculty the entire year. Mr. Chase's remodeling of the biological course has rendered that work second to none in the State. Miss Lennon has now been with us two years. I regard her work as of a very high grade and worthy of special commendation. Both Miss Swain and Miss Lennon have extended their usefulness to the Training School, where their lines of work have been practically under their supervision. This is a kind of service that can not be too highly commended in a Normal School. We have every reason to congratulate ourselves upon having placed Miss Henley in charge of the English department. Her influence as a woman, in addition to her culture and excellent teaching powers, are rendering her daily more valuable to us. Miss Lowry, who was giving fair promise in her Training School work, was forced to resign, owing to the prolonged illness of her mother. Miss Sproul, who succeeds her, is rapidly gaining familiarity with our work, and upon completion of her first year will have become one of our most valuable Training School assistants. Miss Stiles has, from the beginning, been a tower of strength in both management and instruction.

We are losing Mr. Henderson, who is one of the very best trained men on this coast philosophically, the organizer of our professional department, and a thorough and inspiring teacher, who commanded the love and respect of our students.

During the first two years of my work here I found that in matters of business, most of the student enterprises had been for years handled in a very slipshod and negligent manner. Debts were contracted and left unpaid; property was either lost, neglected, or misappropriated; faithful and exact services were not uniformly required. Evidently no sense of responsibility in business matters had ever been cultivated, and not the least danger in the situation lay in the bad example to individuals, not a few of whom showed tendencies to a similar negligence in transaction of personal business affairs both with local merchants and with the school. What the student body needed was organization such as would render possible a business control of all their enterprises. To this end our students were organized as the "Associated Students" last September, the controlling feature being the auditing committee, composed of two students and one member of the faculty. The necessity of reporting to this committee in accordance with the strictest business accounting of both money and property, has placed some eight or more enterprises handling money upon a sound basis. Not all are as yet out of debt, but they are becoming so. The reaction upon individual responsibility is healthful, and in the course of a year a large number of students receive good ideas and practice in the business management of affairs. I feel the work is worthy of mention to you, for a very inefficient touch with the practical affairs in life has too long, though too justly, been a reproach to the teaching profession. Whatever we can do should be done to remedy the defect.

I wish to call your attention also to the faculty's present plan of joint recommendations to graduates. Its merits are explained in the printed sheets which I submit herewith.

Touching improvements in building and grounds the coming year I wish to make the following suggestions for expenditure, in addition to the regular running expenses of the institution:

First—That a sufficient amount of money, to connect the sewerage system of the institution with that of the city of Chico, be appropriated from the ground funds, provided that no insurmountable difficulty, legally, presents itself, and the condition of our own cesspools should make it requisite.

Second—That enough money to put the closets in good repair be appropriated from the support fund.

Third—That \$400 be taken from the support fund for the purpose of making the following improvements in the building: (a) The conversion of room E, adjoining this office, into a well-equipped Preceptress and sick room, a very essential adjunct to the work of a school, the greater number of whose students are women. There is at present no such room in existence either sufficiently commodious or capable of being

heated. In this respect we fall behind Los Angeles, San José, and San Diego. (b) To convert the present Preceptress' office into a dressing-room for the girls who play basket-ball. This game should be fostered among our women students. Now they have no fit place to dress and no means for shower bath after playing. In consequence many do not play; others suffer, through lack of care after practice, from colds. (c) To put a partition through the dressing-room on the third floor, so as to create a clean and sweet lunch-room. At present lunches can be taken only in dressing-rooms, which, for a large share of the year, are filled with the odors of umbrellas, rubbers, damp clothing, and the like.

In addition to the above, the Executive Committee should be directed to have the window cords repaired throughout the building, to supply the library chairs with rubber tips, and to have the curb boards renewed for the front walk.

The Legislature meets the coming winter. While it is impossible to predict anything at present as to appropriations, the interests of the school demand that we work here, as elsewhere, to bring the school up to its highest efficiency. To this end we are justified in expecting equipment and support for all lines of work found in other Normal Schools of the State. At present we are far behind in two lines: we need special facilities for both Manual Training and Physical Culture.

It ought to be possible for this institution to illustrate the most advanced movements in education, especially those which stand closest to the interests of this section of the State. Our present industrial reawakening in California and the imminent demand for that service which depends upon intelligent co-operation of hand and mind, call for handicraft in popular education. The State Normal School at Chico should set the pace in this regard. Again, while our students come to us physically strong and in good health as a rule, they generally have not that bearing and physical presence which are demanded of the teacher, especially in her function as a model for childhood. What we need, therefore, is such an equipment as will be best suited to cultivating physical tone, grace, and ease of presence, while it at the same time insures, especially for our young women, good health during student life.

In pursuance of these needs, therefore, I recommend the appointment of a committee for the purpose of recommending and furthering legislation for the more perfect equipment of the school in these respects, and for the complete remodeling of the plumbing, which will soon become necessary.

Respectfully submitted,

C. C. VAN LIEW,
President of Chico State Normal School.

BIENNIAL REPORT

OF THE

STATE NORMAL SCHOOL

AT LOS ANGELES

FOR THE

TWO YEARS ENDING JUNE 30, 1902.



SACRAMENTO:

A. J. JOHNSTON, : : : : SUPERINTENDENT STATE PRINTING.
1902.

REPORT.

STATE NORMAL SCHOOL AT LOS ANGELES,
October 25, 1902.

To His Excellency HENRY T. GAGE, *Governor of California:*

SIR: The Board of Trustees of the State Normal School at Los Angeles herewith submits the financial report of said institution for the fifty-second fiscal year, ending June 30, 1901, and for the fifty-third fiscal year, ending June 30, 1902.

R. H. F. VARIEL, President,
H. W. O'MELVENY,
E. J. LOUIS,
Executive Committee.

EDWARD T. PIERCE,
Secretary.

FINANCIAL REPORT.

FIFTY-SECOND FISCAL YEAR, ENDING JUNE 30, 1901.

CURRENT EXPENSE FUND.

1900.		Receipts.	
July 1—	Amount of appropriation.....		\$4,000 00
	Balance of appropriation from fifty-first fiscal year		246 23
Date of Auditing.			<u>\$4,246 23</u>
1900.		Disbursements.	
Sept. 21—	Grimes-Stassforth Co., stationery supplies.....		\$13 50
	Alexander & Beyrle, lumber for repairs.....		92 55
	Los Angeles City Water Co., water		33 60
	Los Angeles Lighting Co., gas		11 40
	Sunset Telephone Co., rent of telephone.....		10 00
	P. H. Mathews, supplies.....		60 05
	Pacific Micro Materials Co., biological supplies..		17 50
	J. S. Collins, expenses attending Board meeting.....		8 50
	F. S. Collins, botanical specimens		5 00
	Southern California Music Co., paym'ts on pianos, and tuning same		52 50
	Standard Oil Co., floor dressing.....		13 55
	H. Jevne, supplies		6 90
	E. J. Louis, expenses attending Board meeting.....		10 50
	Los Angeles Transfer Co., expressage on school supplies		2 73
	Times-Mirror Co., advertising		1 50
	Herald-Publishing Co., advertising		3 00
	Evening Express Co., advertising.....		2 10
	Edward T. Pierce, cash paid for sundries		12 07
Oct. 19—	Los Angeles Lighting Co., gas		15 45
	Southern Electrical Co., repairing electric clock		9 60
	Coulter Dry Goods Co., supplies		3 23
	H. Jevne, janitor's supplies.....		62 25
	Fowler Bros., books for teachers' use		3 20
	N. B. Blackstone Co., supplies for Domestic Science department ..		2 55
	P. H. Mathews, varnish		4 00
	Cass-Damerel Co., hardware supplies.....		38 63
	Sunset Telephone Co., rent of telephone.....		5 30
	Los Angeles City Water Co., water		24 65
	W. H. Perry Lumber Co., sloyd materials.....		11 62
	A. Zellerbach & Sons, paper for cardboard sloyd		2 40
	Grimes-Stassforth Co., stationery supplies		68 07
	Edward T. Pierce, cash paid for sundries		29 53
	J. S. Collins, expenses attending Board meeting.....		9 50
	Los Angeles Record, advertising.....		2 10
	Prang Educational Co., photos for school use.....		25 20
	F. W. Braun & Co., chemical supplies		26 05
	Southern California Music Co., payments on pianos.....		35 00
	Wannup & Forbush, library cards		17 00
	Willis Newsom, assistance in cleaning during vacation.....		10 50
	Lazarus & Melzer, stationery supplies		134 70

CURRENT EXPENSE FUND—CONTINUED.

1900.		Disbursements—Continued.	
Nov. 12—	Los Angeles Lighting Co., gas.....		\$21 75
	Alexander & Beyrle, lumber for bookcases, etc.....		31 53
	Los Angeles City Water Co., water.....		38 15
	Cass-Damerel Co., hardware.....		12 25
	Coulter Dry Goods Co., domestic science supplies.....		3 23
	H. Jevne, janitor's supplies.....		4 00
	Grimes-Stassforth Co., stationery supplies.....		20 35
	Germain Fruit Co., seeds for kindergarten.....		2 42
	Howe-Curry Co., supplies for engine room.....		10 09
	City Boiler Inspector, inspecting school boiler.....		5 00
	Fowler Bros., books for teachers' use.....		1 12
	Adolf Frese, biological supplies.....		3 70
	W. McLellan, Jr. & Co., material for picture frames.....		19 94
	Sunset Telephone Co., rent of telephone.....		5 75
	Edward T. Pierce, cash paid for sundries.....		2 32
	Southern Electrical Co., repairing office clock.....		2 70
	C. C. Cleghorn, portfolios and Chautauqua files.....		16 00
	Normal Book Store, supplies.....		1 30
	Southern California Music Co., payment on pianos.....		25 00
	Los Angeles Lighting Co. (Gas Appliance Dep't), gas fixtures.....		9 55
Dec. 12—	Southern California Music Co., payment on pianos.....		25 00
	J. S. Collins, expenses attending Board meeting.....		9 00
	Wm. H. Hoegee, burlap.....		2 16
	P. H. Mathews, supplies.....		4 75
	Southern Electrical Co., material and labor repairing clock.....		7 20
	Los Angeles Transfer Co., expressage on books.....		10 15
	Los Angeles City Water Co., water.....		39 50
	Cass-Damerel Co., supplies.....		15 24
	Grimes-Stassforth Co., stationery supplies.....		22 25
	Los Angeles Lighting Co. (Gas Appliance Department), gas fixtures and stove.....		7 80
	Sunset Telephone Co., rent of telephone.....		5 00
	Lazarus & Melzer, stationery supplies.....		2 22
	Adolf Frese, biological supplies.....		5 15
	Los Angeles Lighting Co., gas.....		22 20
	E. J. Louis, expenses attending Board meeting.....		8 70
	T. Frank McGrath, tinting walls.....		7 00
	Edward T. Pierce, cash paid for exchange.....		2 25
1901.			
Jan. 23—	Alexander Morrison, oil for furnace.....		96 35
	W. I. Keese, repairing office clock.....		2 40
	Perry Lumber Co., lumber for Training School sloyd.....		1 75
	Lazarus & Melzer, stationery supplies.....		30 10
	Los Angeles Transfer Co., freight on books.....		3 50
	Ludwig & Matthews, tree for kindergarten.....		2 35
	Cass-Damerel Co., hardware supplies.....		13 80
	Grimes-Stassforth Co., stationery supplies.....		10 60
	Los Angeles City Water Co., water.....		31 45
	W. C. Smith, painting smoke-stack.....		2 50
	R. W. Dromgold, repairing sign.....		25 00
	Robert L. Hickcox, pencils.....		10 45
	P. H. Mathews, supplies.....		3 05
	John Rockwood, filling diplomas.....		1 80
	Stoll & Thayer, calendars for Training School drawing classes.....		2 40
	Sunset Telephone Co., rent of telephone.....		5 00
	A. Zellerbach & Sons, stationery supplies.....		3 75
	Clarence J. Shults, mimeographing music.....		6 90

CURRENT EXPENSE FUND—CONTINUED.

1901.	<i>Disbursements—Continued.</i>	
Jan. 23—	Edward T. Pierce, cash paid for sundries	\$12 47
	Los Angeles Lighting Co., gas	17 85
	Boston Dry Goods Store, felt	1 35
	Southern California Music Co., payment on pianos	25 00
Feb. 14—	M. W. Kellogg, boiler compound	6 00
	F. S. Collins, biological specimens	5 00
	E. J. Louis, expenses attending Board meeting	9 70
	J. S. Collins, expenses attending Board meeting	9 50
	Los Angeles Lighting Co., gas	32 40
	Los Angeles City Water Co., water	39 40
	L. A. Craig, diplomas	81 75
	Normal Book Store, maps for Training School	2 00
	Coulter Dry Goods Co., supplies	9 30
	Wannop & Forbush, stationery supplies	10 00
	Grimes-Stassforth Co., stationery supplies	5 00
	W. McClellan Jr. & Co., stationery supplies	8 65
	Boston Dry Goods Store, supplies	1 15
	F. W. Braun & Co., chemical supplies	34 66
	Los Angeles Rubber Stamp Co., stamps	1 00
	H. Jevne, oil	4 00
	Sunset Telephone Co., rent of telephone	5 30
	Los Angeles Transfer Co., fares of Senatorial Committee	2 25
	S. Conradi, repairing clocks	2 00
	Alexander Morrison, oil for furnace	18 15
	Diamond Coal Co., coal	168 17
	Lazarus & Melzer, stationery supplies	5 72
	Edward T. Pierce, cash paid for sundries	10 30
	Southern California Music Co., payment on pianos	25 00
	W. C. Catherwood, map	1 50
	H. O'Bryan, pictures for class rooms	3 50
	Normal Exponent, annual edition of school paper	5 00
Mar. 19—	California Carpet Co., rugs	6 15
	H. Jevne, chimneys	1 50
	W. I. Keese, repairing electric clock	15 60
	Bessie D. Stoddart, kindergarten blocks	4 50
	Los Angeles Lighting Co., gas	30 00
	Los Angeles City Water Co., water	40 00
	Los Angeles Transfer Co., expressage on books	3 50
	Grimes-Stassforth Co., books	1 50
	S. Conradi, clocks and thermometers	12 00
	Sunset Telephone Co., rent of telephone	5 10
	Coulter Dry Goods Co., supplies	29 52
	Cass-Damerel Co., supplies	54 58
	Alexander Morrison, oil for furnace	45 10
	Southern California Music Co., payment on pianos	25 00
	Los Angeles Gas Saving Association, rent of regulator	6 00
	F. W. Braun & Co., chemical supplies	44 85
	Mrs. Gardner, sewing	3 75
	N. B. Blackstone Co., domestic science supplies	1 38
	Edward T. Pierce, cash paid for sundries	2 25
	John Rockwood, filling diplomas	12 00
	Stoll & Thayer, card index system	3 25
	G. Schirmer, music for class work	3 31
April 22—	F. W. Braun & Co., chemical supplies	13 63
	Adolf Frese, biological supplies	5 35
	Los Angeles Lighting Co., gas	29 55
	J. S. Collins, expenses attending Board meeting	9 75

CURRENT EXPENSE FUND—CONTINUED.

1901.		Disbursements—Continued.	
April 22—	A. Zellerbach & Sons, stationery supplies		\$35 16
	Grimes-Stassforth Co., stationery supplies		116 25
	Los Angeles City Water Co., water		49 00
	W. I. Keese, repairing electric clock		9 15
	Pacific Micro Materials Co., biological supplies		8 09
	Perry Lumber Co., lumber for Training School, sloyd department		15 45
	F. S. Collins, biological specimens		5 00
	Los Angeles Transfer Co., expressage on supplies		6 55
	C. E. Lapp, oil for furnace		28 04
	Novello, Ewer & Co., music for class use		3 09
	Postal Telegraph Cable Co., telegrams		1 78
	Lazarus & Melzer, stationery supplies		93 57
	H. Jevne, domestic science supplies		26 78
	Sunset Telephone Co., rent of telephone		5 25
	Southern California Music Co., payment on pianos		25 00
	Edward T. Pierce, cash paid for sundries		18 51
	Jones's Book Store, supplies		3 00
	Robert L. Hickcox, books for teachers' use		9 32
	B. M. Davis, biological supplies		5 65
	E. J. Louis, expenses attending Board meeting		9 30
	Alexander & Beyrle, lumber for bookcases		28 34
	Edward Dietrich, mounting rabbits		12 50
	Cass & Smurr, supplies		1 00
May 24—	W. I. Keese, electric clock		165 00
	H. Jevne, domestic science supplies		10 10
	Los Angeles City Water Co., water		53 05
	Los Angeles Lighting Co., gas		25 05
	F. W. Braun & Co., chemicals		3 70
	Cass-Damerel Co., supplies		55 07
	Minnie M. Glidden, kindergarten supplies		2 13
	Grimes-Stassforth Co., stationery supplies		16 45
	Ada M. Laughlin, supplies for Training School		1 80
	Los Angeles Rubber Stamp Co., seal		4 00
	Sunset Telephone Co., rent of telephone		5 00
	Hunt & Clark, zoological supplies		5 00
	Germain Fruit Co., raffia		5 22
	C. E. Lapp Co., oil for furnace		36 80
	G. A. Johnson, examining plumbing		2 00
	Alexander & Beyrle, lumber		56 00
	California Ornamental Brick Co., repairs		11 00
	T. J. Stephens, plumbing		37 50
	Cass & Smurr Co., domestic science supplies		4 55
	Southern California Music Co., payment on pianos		25 00
June 17—	Los Angeles City Directory Co., directory		5 00
	Grimes-Stassforth Co., stationery supplies		25 25
	J. S. Collins, expenses attending Board meetings		19 25
	E. J. Louis, expenses attending Board meetings		28 90
	F. W. Braun & Co., chemicals		2 26
	Los Angeles City Water Co., water		49 90
	Southern California Music Co., payment on pianos		27 50
	Los Angeles Transfer Co., freight charges		61 60
	Niles Pease Furniture Co., supplies		40 00
	Jennie Hagan, music for class work		5 64
	Los Angeles Lighting Co., gas		31 95
	Sunset Telephone Co., rent of telephone		5 00
	Edward Dietrich, mounting biological specimens		12 50
	Cass-Damerel Co., supplies		12 60
	Edward T. Pierce, cash paid for sundries		14 27

CURRENT EXPENSE FUND—CONTINUED.

1901.		<i>Disbursements—Continued.</i>	
July 8—	Los Angeles Gas Saving Association, rent of regulator		\$4 00
	P. H. Mathews, supplies		33 00
	Niles-Pease Furniture Co., rugs		6 50
	Normal Exponent, copies of semi-annual edition of school paper..		5 00
	Coulter Dry Goods Co., supplies		9 80
	Grimes-Stassforth Co., stationery supplies		19 60
	Cass-Damerel Co., supplies		6 69
	W. I. Keese, repairing clock		3 05
	Lazarus & Melzer, stationery supplies		1 88
	Los Angeles Lighting Co. (Gas Appliance Department), supplies ..		8 55
	Clarence J. Shults, mimeographing music		6 90
	John Rockwood, filling diplomas		28 80
	Sunset Telephone Co., rent of telephone		5 00
	Southern California Music Co., payment on pianos and tuning same		31 00
	Los Angeles Lighting Co., gas		40 05
	Los Angeles City Water Co., water		50 55
	Edward T. Pierce, cash paid for sundries		30 78
	J. S. Collins, expenses attending Board meeting		9 00
	Mrs. Emily Bromley, laundrying curtains		2 25
	Los Angeles Rubber Stamp Co., stamp		1 10
	F. W. Braun & Co., chemicals		6 20
	By balance		17
			<hr/> \$4,246 23 <hr/>

CARE AND IMPROVEMENT OF GROUNDS.

1900.		<i>Receipts.</i>	
July 1—	Amount of appropriation		\$1,250 00
	Balance of appropriation from fifty-first fiscal year		222 19
			<hr/> \$1,472 19 <hr/>
Date of Auditing.		<i>Disbursements.</i>	
1900.			
Sept. 21—	Los Angeles City Water Co., water		\$11 39
	Thomas Farnham, gardener, for July and August		120 00
Oct. 19—	Los Angeles City Water Co., water		5 55
	Thomas Farnham, gardener, for September		60 00
Nov. 12—	Los Angeles City Water Co., water		20 35
	Thomas Farnham, gardener, for October		60 00
Dec. 12—	Los Angeles City Water Co., water		12 30
	Thomas Farnham, gardener, for November		60 00
	Cass-Damerel Co., garden tools		5 30
1901.			
Jan. 23—	Los Angeles City Water Co., water		9 75
	Thomas Farnham, gardener, for December		60 00
Feb. 14—	Los Angeles City Water Co., water		9 15
	Alcatraz Asphalt Paving Co., repaving		16 07
	Thomas Farnham, gardener, for January		32 00
Mar. 19—	Los Angeles City Water Co., water		7 60
	Thomas Farnham, gardener, for February		60 00
April 22—	Los Angeles City Water Co., water		9 60
	E. B. Maxfield, work on grounds		1 88
	Robert L. Hickcox, work on grounds		1 20
	F. E. Blodgett, stone and gravel		24 00
	Los Angeles Lime Co., cement		18 50
	Cass-Damerel Co., supplies		3 73

CARE AND IMPROVEMENT OF GROUNDS—CONTINUED.

1901.		<i>Disbursements—Continued.</i>	
April 22—	Thomas Farnham, gardener, for March	.....	\$60 00
	Alexander & Beyrle, lumber	.....	180 36
	Fred Spring, work on grounds	.....	23 75
	M. W. Finnel, work on grounds	.....	12 50
May 24—	Los Angeles City Water Co., water	.....	12 75
	Alexander & Beyrle, lumber	.....	25 00
	Thomas Farnham, gardener, for April	.....	60 00
	Fred Farnham, work on grounds	.....	3 00
June 17—	Alexander & Beyrle, lumber for bicycle racks	.....	24 92
	Cass-Damerel Co., material for finishing pavilion	.....	4 05
	Los Angeles City Water Co., water	.....	10 05
	P. H. Mathews, material for finishing pavilion	.....	49 95
	Thomas Farnham, gardener, for May	.....	60 00
July 8—	P. H. Mathews, material for finishing pavilion	.....	26 25
	E. B. Maxfield, work on grounds	.....	3 00
	Los Angeles City Water Co., water	.....	13 45
	Thomas Farnham, gardener, for June	.....	60 00
	C. Scheerer & Co., asphalt	.....	110 00
	Cass-Damerel Co., supplies	.....	122 56
	By balance	.....	2 23
			<hr/>
			\$1,472 19

LIBRARY, MUSEUM, ETC.

1900.		<i>Receipts.</i>	
July 1—	Amount of appropriation	.....	\$1,000 00
	Balance of appropriation from fifty-first fiscal year	.....	36 42
			<hr/>
			\$1,036 42
1900.		<i>Disbursements.</i>	
Sept. 21—	C. C. Parker, books	.....	\$41 98
Oct. 19—	C. C. Parker, books	.....	18 90
Nov. 12—	National Educational Ass'n, books	.....	2 00
	Broadway Department Store, books	.....	12 15
	Whitaker & Ray Co., books	.....	7 19
	D. Appleton & Co., books	.....	7 00
	C. C. Parker, books	.....	39 94
Dec. 12—	Kenyon News and Postal Subscription Co., sub't'n to magazines	.....	112 00
	Louis N. Wilson, books	.....	85 00
	California Academy of Sciences, books	.....	5 50
	A. C. McClurg & Co., books	.....	393 25
1901.			
Feb. 14—	Kenyon News and Postal Subscription Co., sub't'n to magazines	.....	1 85
	Globe Publishing Co., books	.....	48 00
	G. P. Putnam's Sons, book	.....	1 40
Mar. 19—	Lucy J. Anderson, book	.....	2 50
	Annie L. Murphy, books	.....	4 00
	A. C. McClurg & Co., books	.....	98 29
	Ada M. Laughlin, books	.....	21 90
	A. Flanagan Co., books	.....	5 75
	C. C. Parker, books	.....	6 83
	B. R. Baumgardt, books	.....	1 50
April 22—	A. C. McClurg, books	.....	39 27
May 24—	A. C. McClurg, books	.....	11 91
	C. C. Parker, books	.....	8 40

LIBRARY, MUSEUM, ETC.—CONTINUED.

1901.		<i>Disbursements—Continued.</i>	
May 24—	Ada M. Laughlin, books	-----	\$11 50
June 17—	George F. Cram, books	-----	15 00
July 8—	C. C. Parker, books	-----	2 15
	Fowler Brothers, books	-----	30 89
	By balance	-----	37
			<hr/>
			\$1,036 42

SALARY FUND.

1900.		<i>Receipts.</i>	
July 1—	Amount of appropriation	-----	\$47,000 00
	Balance of appropriation from fifty-first fiscal year	-----	2,026 45
Date of Auditing.			<hr/>
1900.		<i>Disbursements.</i>	\$49,026 45
July 21—	Employés' salaries for July	-----	\$3,845 90
Aug. 21—	Employés' salaries for August	-----	3,845 90
Sept. 21—	Employés' salaries for September	-----	4,085 90
Oct. 19—	Employés' salaries for October	-----	4,085 90
Nov. 12—	Employés' salaries for November	-----	4,085 90
Dec. 12—	Employés' salaries for December	-----	3,985 90
1901.			
Jan. 23—	Employés' salaries for January	-----	3,985 90
Feb. 14—	Employés' salaries for February	-----	4,085 90
Mar. 19—	Employés' salaries for March	-----	4,161 52
Apr. 22—	Employés' salaries for April	-----	4,148 40
May 24—	Employés' salaries for May	-----	4,195 90
June 17—	Employés' salaries for June	-----	4,198 15
July 1—	By balance	-----	315 28
			<hr/>
			\$49,026 45

CONTINGENT FUND.

1900.		<i>Receipts.</i>	
July 1—	Balance State Treasury	-----	\$718 22
1901.			
July 1—	Chemistry fees during year	-----	198 75
	Library fees during year	-----	146 50
Date of Auditing.			<hr/>
1900.		<i>Disbursements.</i>	\$1,063 47
Sept. 21—	B. R. Baumgardt, printing tickets	-----	\$3 25
Nov. 12—	Kingsley, Barnes & Neuner, rebinding books	-----	14 20
Dec. 12—	Kaestner & Brown, repairing books	-----	7 85
1901.			
Jan. 23—	Kaestner & Brown, rebinding books	-----	22 90
Feb. 14—	Kaestner & Brown, rebinding books	-----	48 80
Mar. 19—	Kaestner & Brown, rebinding books	-----	41 85
April 22—	Kaestner & Brown, rebinding books	-----	4 00
May 24—	Kaestner & Brown, rebinding books	-----	45 90
June 17—	Putnam & Valentine, prints of building and class-rooms	-----	29 50
July 8—	B. R. Baumgardt, printing programs and tickets for commencement	-----	14 50
	By balance	-----	830 72
			<hr/>
			\$1,063 47

FURNITURE AND APPARATUS.

1900.		
July 1—	To balance of appropriation	\$43 04
Date of Auditing.	<i>Disbursements.</i>	
Sept. 21—	Rand, McNally & Co., globe and atlas	\$24 10
	By balance	18 94
		<u>\$43 04</u>

SPECIAL BUILDING FUND.

1900.		
July 1—	To balance of appropriation	\$19,984 60
Date of Auditing.	<i>Disbursements.</i>	
1900.		
Sept. 21—	Sacramento Publishing Co., advertising	\$60 00
	San Francisco Chronicle, advertising	120 00
	Times-Mirror Co., advertising	45 50
Mar. 19—	Cass & Smurr, furnishings for Domestic Science department	118 58
	Los Angeles Lighting Co., furnishings for Domestic Science department	39 50
May 24—	Sacramento Publishing Co., advertising	63 00
	San Francisco Chronicle, advertising	125 00
	Times-Mirror Co., advertising	52 75
1901.		
July 1—	By balance	19,360 27
		<u>\$19,984 60</u>

FINANCIAL REPORT.

FIFTY-THIRD FISCAL YEAR, ENDING JUNE 30, 1902.

CURRENT EXPENSE FUND.

1901.		<i>Receipts.</i>	
July 1—	To amount of appropriation for fifty-third fiscal year.....		\$4,000 00
Date of Auditing.			
1901.		<i>Disbursements.</i>	
Sept. 6—	Los Angeles City Water Co., water.....		\$32 50
	Grimes-Stassforth Co., stationery supplies.....		9 00
	Los Angeles Lighting Co., gas.....		6 00
	P. H. Mathews, supplies.....		3 50
	Sunset Telephone Co., rent of telephone.....		5 00
	Los Angeles Transfer Co., freight on supplies.....		7 19
	Edward T. Pierce, cash paid out during the month of July, 1901....		3 15
	Los Angeles Lighting Co., gas.....		5 50
	Los Angeles City Water Co., water.....		34 60
	P. H. Mathews, supplies.....		5 25
	F. S. Collins, zoological specimens.....		5 00
	Sunset Telephone Co., rent of telephone.....		5 00
	Southern California Music Co., payment on pianos.....		50 00
	Edward T. Pierce, cash paid out during the month of August, 1901..		17 05
	The Herald, advertising for boarding-places.....		1 50
Oct. 4—	W. I. Keese, repairing bells.....		2 40
	Southern Electrical Co., repairing clock.....		2 70
	F. W. Braun & Co., chemical supplies.....		47 36
	Cass-Damerel Co., supplies.....		7 58
	Standard Oil Co., floor dressing.....		11 25
	Grimes-Stassforth Co., stationery supplies.....		34 62
	Lazarus & Melzer, stationery supplies.....		12 67
	Pacific Micro Materials Co., biological supplies.....		14 74
	Los Angeles City Water Co., water.....		32 80
	Los Angeles Lighting Co., gas.....		12 75
	T. C. Nativel, modeling clay.....		13 20
	Germain Seed and Plant Co., supplies.....		4 73
	Los Angeles Rubber Stamp Co., rubber stamps.....		8 30
	Southern California Music Co., payment on pianos.....		25 00
	Los Angeles Box Co., supplies for Sloyd department.....		2 00
	D. Antognelli, repairing statuary.....		6 50
	John Bloeser, cleaning carpets.....		8 95
	Los Angeles Record, advertising for boarding-places.....		1 05
	Coulter Dry Goods Co., supplies.....		12 42
	H. Jevne, janitor supplies.....		89 68
	Times-Mirror Co., advertising for boarding-places.....		2 00

CURRENT EXPENSE FUND—CONTINUED.

1901.		Disbursements—Continued.	
Oct.	4—	Sunset Telephone Co., rent of telephone.....	\$5 00
		L. & M. Alexander Co., typewriter.....	72 50
		Globe Disinfecting Co., supplies.....	30 30
		Clarence J. Shults, mimeographing music.....	3 45
		Edward T. Pierce, cash paid out during the month of Sept., 1901..	18 34
		Jones's Book Store, books for teacher's desk.....	1 20
Nov.	6—	Grimes-Stassforth Co., stationery supplies.....	51 40
		C. E. Lapp, oil for furnace.....	31 13
		Niles Pease Co., shades.....	3 20
		H. Jevne, supplies for Domestic Science department.....	3 25
		City Boiler Inspector, inspecting school boiler.....	5 00
		Sunset Telephone Co., rent of telephone.....	5 00
		C. Ducommun, hardware supplies.....	3 38
		L. & M. Alexander Co., desk.....	5 70
		Coulter Dry Goods Co., supplies for kindergarten.....	1 40
		Ada M. Laughlin, drawing materials.....	2 00
		W. H. Perry Lumber Co., lumber for Training School, Sloyd department.....	12 25
		Cass-Damerel Co., pails.....	9 65
		William H. Hoegee, curtain.....	3 75
		Southern Electrical Co., repairing clock.....	6 05
		Los Angeles Lighting Co. (Gas Appliance Department), supplies..	7 80
		Los Angeles Lighting Co., gas.....	22 25
		Los Angeles City Water Co., water.....	58 20
		Southern California Music Co., payment on pianos.....	25 00
		Warren & Bailey Manufacturing Co., engine supplies.....	14 59
		National Educational Association, membership dues.....	2 00
		Edward T. Pierce, cash paid out during the month of October, 1901	12 05
		Parmelee-Dohrman Co., flower pots.....	1 00
		S. Conradi, repairing clock.....	1 00
		Cass & Smurr, supplies for Sloyd department.....	1 67
		Maedor & Priester, janitor supplies.....	1 65
Dec.	6—	John A. Smith, material for repairing blinds.....	47 64
		Los Angeles Lighting Co., gas.....	22 50
		Los Angeles City Water Co., water.....	64 50
		Stimson & Fleming, supplies.....	10 50
		Grimes-Stassforth Co., stationery supplies.....	80 75
		Pacific Micro Materials Co., supplies.....	27 00
		Lazarus & Melzer, stationery supplies.....	27 20
		Alexander & Beyrle, supplies.....	27 52
		Jones's Book Store, book for teacher's desk.....	2 00
		S. Conradi, clock.....	4 50
		Los Angeles Public Library, blank cards.....	2 00
		Ada M. Laughlin, drawing materials.....	15 00
		Southern California Music Co., payment on pianos.....	25 00
		Edward T. Pierce, cash paid out during the month of Nov., 1901..	22 70
		W. McClellan Jr. & Co., drawing materials.....	7 00
		Sunset Telephone Co., rent of telephone.....	5 00
1902.			
Jan.	9—	Ada M. Laughlin, drawing materials for Training School.....	11 00
		Los Angeles Transfer Co., freight charges on books.....	11 95
		Los Angeles Lighting Co., gas.....	21 50
		Los Angeles City Water Co., water.....	73 05
		S. Conradi, repairing clocks.....	3 00
		Diamond Coal Co., coal.....	307 20
		C. E. Lapp, fuel oil.....	26 92
		Sunset Telephone Co., rent of telephone.....	5 00

CURRENT EXPENSE FUND—CONTINUED.

1902. *Disbursements—Continued.*

Jan.	9—Jones's Book Store, books.....	\$15 00
	Cass-Damerel Co., supplies.....	13 90
	Coulter Dry Goods Co., supplies for Kindergarten department	4 15
	Lazarus & Melzer, stationery supplies	1 19
	Southern California Music Co., payment on pianos.....	25 00
	Los Angeles Box Co., supplies for Training School, Sloyd department	4 00
	Clarence J. Shults, mimeographing music.....	2 30
	Ludwig & Matthews, tree for kindergarten	2 00
Feb.	10—Los Angeles Lighting Co., gas	22 80
	Los Angeles City Water Co., water.....	81 00
	J. S. Collins, expenses attending Board meeting.....	9 50
	Baker Iron Works, supplies for engine room.....	35 93
	Normal Exponent, copies of school paper.....	5 00
	C. E. Lapp, fuel oil.....	26 92
	F. S. Collins, book of botanical specimens	5 00
	Grimes-Stassforth Co., stationery supplies.....	8 80
	Sunset Telephone Co., rent of telephone.....	5 00
	Southern Electrical Co., repairing bells.....	20 65
	Coulter Dry Goods Co., supplies	8 60
	Southern California Music Co., payment on pianos.....	25 00
	Edward T. Pierce, cash paid out during month	35 36
	Los Angeles Transfer Co., freight charges on books	3 90
	Los Angeles Lithographic Co., diplomas.....	80 25
Mar.	8—C. E. Lapp & Co., fuel oil.....	40 48
	City of Los Angeles, water.....	69 85
	Grimes-Stassforth Co., stationery supplies.....	68 15
	Los Angeles Lighting Co., gas	16 10
	Lazarus & Melzer, stationery supplies.....	16 36
	G. T. Bennett, wiring for electric lights.....	7 45
	Sunset Telephone Co., rent of telephone.....	5 00
	M. W. Kellogg, boiler compound	6 00
	E. J. Louis, expenses attending Board meeting.....	10 30
	Adolf Frese, supplies	8 65
	Coulter Dry Goods Co., supplies for Training School	2 25
	B. M. Davis, biological supplies.....	9 95
	Los Angeles Rubber Stamp Co., rubber stamps.....	3 00
	Wm. H. Hoegee, gymnasium apparatus	10 75
	Southern California Music Co., payment on pianos.....	25 00
	Los Angeles Transfer Co., freight charges on books.....	3 10
	F. W. Braun & Co., supplies	32 09
	Prang Educational Co., drawing supplies.....	14 45
	Germain Fruit Co., supplies	1 50
	Arthur W. Dow, drawing materials.....	7 50
	Edward T. Pierce, cash paid out during month.....	23 48
April	8—Southern California Music Co., payment on pianos.....	25 00
	Los Angeles Lighting Co., gas	19 10
	Los Angeles Lighting Co. (Gas Appliance Department), supplies.....	24 73
	City of Los Angeles, water	52 30
	McClellan-Kanst Co., kindergarten supplies	2 25
	Perry Lumber Co., lumber for Sloyd department.....	15 49
	Cass-Damerel Co., supplies.....	6 63
	Sunset Telephone Co., rent of telephone.....	5 00
	Jones's Book Store, blackboard cloth.....	5 70
	John Rockwood, filling diplomas.....	8 70
	Edward T. Pierce, cash paid out during March	5 50
May	8—Boston Dry Goods Store, kindergarten supplies	6 55

CURRENT EXPENSE FUND—CONTINUED.

1902.		<i>Disbursements—Continued.</i>	
May	8	Grimes-Stassforth Co., stationery supplies	\$14 20
		City of Los Angeles, water	51 20
		Los Angeles Lighting Co., gas	15 90
		Coulter Dry Goods Co., kindergarten supplies	2 20
		C. E. Lapp & Co., fuel oil	50 40
		Alexander & Beyrle, lumber for repairs	74 04
		Los Angeles Transfer Co., freight on school supplies	7 09
		Edward T. Pierce, cash paid out during April, 1902	12 50
		Southern California Music Co., payment on pianos	25 00
		Southern Electrical Co., repairing bells	1 20
		Lazarus & Melzer, copy press for Sloyd room	4 75
		A. Zellerbach & Sons, stationery supplies	4 05
		Z. L. Parmelee, electric fixtures	38 14
		Blake, Moffitt & Towne, supplies	2 71
		Sunset Telephone Co., rent of telephone	5 00
June	9	Cass-Damerel Co., supplies	6 62
		Los Angeles Lighting Co., gas	13 90
		Pacific Micro Materials Co., supplies for biological laboratory	7 10
		City of Los Angeles, water	48 10
		Grimes-Stassforth Co., stationery supplies	19 95
		Coulter Dry Goods Co., ribbon for diplomas	3 50
		Los Angeles Transfer Co., freight on school books	1 26
		Gane Bros. & Co., supplies for Manual Training department	4 00
		Southwest Printers Supply Co., supplies for Manual Training department	3 87
		Southern Electrical Co., repairing clock	14 10
		Niles Pease Furniture Co., supplies	29 86
		P. H. Mathews, blackboard materials	22 62
		Wilmans Bros., supplies for Manual Training department	10 00
		Barker Bros., supplies for biological laboratory	3 50
		H. Jevne, janitor supplies	13 00
		Lazarus & Melzer, stationery supplies	15 81
		Southern California Music Co., payment on pianos	25 00
		Edward T. Pierce, cash paid out during month	21 13
		C. O. D. Electric Works, wiring for lights	22 00
		George Elliott, supplies	9 90
July	3	Barker Bros., tables	17 50
		Los Angeles Electric Co., electricity and appliances	9 95
		Diamond Window Cleaning Co., cleaning windows	15 25
		Lazarus & Melzer, stationery supplies	8 34
		Niles Pease Furniture Co., shades and rugs	15 78
		Grimes-Stassforth Co., stationery supplies	12 10
		Cass-Damerel Co., supplies	25 30
		Coulter Dry Goods Co., supplies	13 20
		Los Angeles Gas Saving Association, rent of regulators	10 00
		John Rockwood, filling diplomas	21 60
		Germain Fruit Co., raffia	12 39
		E. J. Louis, expenses attending Board meeting	10 10
		Alexander & Beyrle, lumber for repairs	55 09
		B. M. Davis, supplies for biological laboratory	13 00
		Cass & Smurr Co., ladder	6 40
		Parmelee-Dohrman Co., supplies	11 75
		Willis Newsom, cleaning in new building	8 00
		Los Angeles City Directory Co., directory	6 00
		Z. L. Parmelee, electric fixtures	23 35
		Los Angeles City Water Co., water	49 40
		Los Angeles Lighting Co., gas	13 60

CURRENT EXPENSE FUND—CONTINUED.

1902.

Disbursements—Continued.

July 3—Southern California Music Co., payment on pianos.....	\$25 00
Southern Electrical Co., wiring hall and repairing bells	25 10
Edward T. Pierce, cash paid out during month	12 95
Ada M. Laughlin, material for drawing classes.....	10 00
Los Angeles Lighting Co., gas appliances.....	3 85
By balance.....	147 26
	<u>\$4,000 00</u>

CARE AND IMPROVEMENT OF GROUNDS.

1901.

Receipts.

July 1—Amount of appropriation.....	<u>\$1,000 00</u>
-------------------------------------	-------------------

Date of
Auditing.
1901.*Disbursements.*

Sept. 6—Los Angeles City Water Co., water	\$14 70
Cass-Damerel Co., hardware supplies	3 70
Thomas Farnham, gardener, for July.....	60 00
Los Angeles City Water Co., water.....	15 00
Thomas Farnham, gardener, for August.....	60 00
Oct. 4—Los Angeles City Water Co., water	12 15
Cass-Damerel Co., supplies.....	1 95
A. Wozencraft, work on grounds.....	8 00
Thomas Farnham, gardener, for September.....	60 00
Nov. 6—Los Angeles City Water Co., water.....	8 95
Thomas Farnham, gardener, for October	60 00
Dec. 6—Cass-Damerel Co., supplies.....	3 70
E. B. Maxfield, work on grounds	6 90
Los Angeles City Water Co., water.....	4 90
1902. Thomas Farnham, gardener, for November.....	60 00
Jan. 9—Los Angeles City Water Co., water.....	7 30
W. L. Riley, work on grounds.....	8 00
Thomas Farnham, gardener, for December	60 00
Feb. 10—Los Angeles City Water Co., water.....	6 85
Thomas Farnham, gardener, for January.....	60 00
Mar. 8—City of Los Angeles, water.....	9 30
Cass-Damerel Co., soil pipe	4 85
Thomas Farnham, gardener, for February.....	60 00
April 8—City of Los Angeles, water.....	6 78
Thomas Farnham, gardener, for March	60 00
May 8—City of Los Angeles, water.....	9 38
Thomas Farnham, gardener, for April.....	60 00
June 9—City of Los Angeles, water.....	12 45
Thomas Farnham, gardener, for May.....	60 00
July 3—Cass & Smurr Stove Co., hose.....	9 00
Cass-Damerel Co., lawn-mower	13 15
Thomas Farnham, gardener, for June	60 00
By balance	112 99
	<u>\$1,000 00</u>

SPECIAL FURNITURE AND APPARATUS FUND.

1901.

July 1—To balance	\$18 94
-------------------------	---------

1902.

July 1—By balance.....	\$18 94
------------------------	---------

2—LA

LIBRARY, MUSEUM, ETC.

1901.		Receipts.	
July	1—Amount of appropriation		\$1,000 00
Date of Auditing.		Disbursements.	
1901.			
Sept.	6—Edward Dietrich, mounting specimens		\$37 00
	D. Appleton & Co., books		7 00
	C. C. Parker, books		7 50
Oct.	4—A. C. McClurg & Co., books		43 15
Nov.	6—Educational Review, books		3 00
Dec.	6—Kenyon News and Postal Subscription Co., subscriptions for 1902		126 85
	American School Board Journal, subscription		1 00
	Ada M. Laughlin, drawing materials to be kept on file in Library		6 15
1902.			
Jan.	9—Lewis P. McCarty, book		3 50
	A. C. McClurg & Co., books		339 63
	Fowler Bros., magazines		1 65
Feb.	10—Dodd, Mead & Co., books		12 00
	A. C. McClurg & Co., books		132 02
	De Wolfe, Fiske & Co., books		3 90
	Kenyon News and Postal Subscription Co., books		1 50
Mar.	8—Land of Sunshine Publishing Co., magazines		10 40
April	8—A. C. McClurg & Co., books		53 14
	Pacific Coast Press, books		68 40
	Kingsley, Barnes & Neuner Co., book		3 50
	Earl Barnes, book		1 50
May	8—A. C. McClurg & Co., books		34 82
	Arthur W. Bradley, magazines		1 00
June	9—Edward D. Bronson, books		75 05
	Pacific Coast Press, books		7 00
July	3—A. C. McClurg & Co., books		5 86
	Whitaker & Ray Co., books		11 98
	A. G. McCarthy, book		1 50
			<u>\$1,000 00</u>

SALARY FUND.

1901.		Receipts.	
July	1—Amount of appropriation		\$47,000 00
Date of Auditing.		Disbursements.	
1901.			
July	8—Employés' salaries for July		\$3,847 55
Aug.	27—Employés' salaries for August		3,847 55
Sept.	6—Employés' salaries for September		3,898 55
Oct.	4—Employés' salaries for October		3,902 55
Nov.	6—Employés' salaries for November		3,904 05
Dec.	6—Employés' salaries for December		3,900 05
1902.			
Jan.	9—Employés' salaries for January		3,900 05
Feb.	10—Employés' salaries for February		3,910 05
Mar.	8—Employés' salaries for March		3,907 55
April	8—Employés' salaries for April		3,907 55
May	8—Employés' salaries for May		3,907 55
June	9—Employés' salaries for June		3,907 55
June	30—By balance		259 40
			<u>\$47,000 00</u>

CONTINGENT FUND.

1901.		<i>Receipts.</i>	
July 1—	To balance on hand		\$830 72
1902.			
July 8—	Normal Students, chemistry fees for year		167 50
	Normal Students, library fees for year		126 00
<i>Date of Auditing.</i>			
1901.		<i>Disbursements.</i>	<u>\$1,124 22</u>
Sept. 6—	E. J. Louis, expenses attending Board meeting		\$10 30
Oct. 4—	Kaestner & Brown, rebinding books		22 00
	Nielson Bros., wall paper		3 25
Nov. 6—	Kaestner & Brown, rebinding books		29 85
1902.			
Jan. 9—	Kaestner & Brown, repairing books		21 10
	Wm. Knickrehn, moving laboratory		40 00
	Guercio Bros., work on laboratory		56 18
	Dawson & Eldridge, work on laboratory		234 00
May 8—	Kaestner & Brown, rebinding books		27 35
June 9—	Kaestner & Brown, repairing books		5 10
July 3—	B. R. Baumgardt & Co., tickets and programs		16 25
July 8—	By balance		658 84
			<u>\$1,124 22</u>

SPECIAL BUILDING FUND.

1901.		<i>Receipts.</i>	
July 1—	Balance of appropriation		\$19,360 27
1902.			
Jan. 1—	Appropriation		3,500 00
<i>Date of Auditing.</i>			
1901.		<i>Disbursements.</i>	<u>\$22,860 27</u>
Sept. 6—	Octavius Morgan, preparing plans and specifications		\$500 00
Oct. 4—	S. T. Eldridge, carpenter work		540 00
Nov. 6—	S. T. Eldridge, mason work		2,010 00
	S. T. Eldridge, carpenter and plaster work		1,230 00
Dec. 6—	S. T. Eldridge, carpenter work		3,465 00
1902.			
Jan. 9—	Octavius Morgan, preparing plans and specifications		300 00
	S. T. Eldridge, carpenter and plaster work		2,736 00
	S. T. Eldridge, mason work and excavation		550 00
	Newell Bros., plumbing and gas-piping		450 00
	T. P. Bruce, tinning and galvanized iron		225 00
Feb. 10—	M. E. Van Vooth, painting		150 00
	Marshall Floor and Supply Co., Luxfer prisms		610 00
Mar. 8—	W. A. Fruhling, iron work		1,178 00
	M. E. Van Vooth, painting		155 00
	S. T. Eldridge, carpenter work		2,322 00
April 8—	Newell Bros., plumbing and gas-piping		436 00
May 8—	T. P. Bruce, tinning and galvanized iron work		40 00
	M. E. Van Vooth, painting		455 00
July 3—	M. E. Van Vooth, painting		315 00
	S. T. Eldridge, carpenter work		3,789 00
	S. T. Eldridge, mason work		1,145 00
	Octavius Morgan, preparing plans and specifications		150 00
July 3—	By balance		109 27
			<u>\$22,860 27</u>

ANNUAL REPORTS

OF THE

BOARD OF DENTAL EXAMINERS

OF THE

STATE OF CALIFORNIA.



SACRAMENTO:

A. J. JOHNSTON, : : : SUPERINTENDENT STATE PRINTING.
1902.

Acting under instructions from the Attorney-General, the last Board, at the close of its term of office tendered to the new Board, on September 2, 1901, all books and property, including the cash above referred to, all of which was accepted by the Secretary of the new Board and the transfer of the same was made on November 25, 1901.

Respectfully submitted.

G. S. BACKMAN, D.D.S.,
Secretary of last Board of Dental Examiners.

Certified correct:

GEO. I. DRUCKER, D.D.S.,
President of last Board of Dental Examiners.

FIRST ANNUAL REPORT.

(Under Dental Law of 1901.)

To His Excellency HENRY T. GAGE, Governor of the State of California:

SIR: The Board of Dental Examiners of California submits the following as the first annual report of its proceedings, together with an account of all the moneys received and disbursed by it, in compliance with the provisions of that certain Act of the Legislature entitled "An Act to insure the better education of practitioners of dental surgery, and to regulate the practice of dentistry in the State of California, providing penalties for the violation hereof, and to repeal an Act now in force relating to the same and known as 'An Act to insure the better education of practitioners of dental surgery, and to regulate the practice of dentistry in the State of California,' approved March 12, 1885," approved March 23, 1901.

By reason of the fact that the present Board did not take office until the first of September of this year, and that Section 22 of the Act creating the Board requires a report by the first of December, this report must necessarily be brief.

The Board has had but little opportunity to do more than to organize and to inaugurate the necessary preliminary work. Two meetings have been held, the first being held on the 2d, 3d, and 4th of September, 1901, and the second on the 23d of November, 1901, both being held in the City and County of San Francisco, and both being attended by all the members of the Board, viz.: H. R. Harbison, D.D.S., of San Diego; F. R. Cunningham, D.D.S., of Los Angeles; G. E. Schillig, D.D.S., of Marysville; J. M. Dunn, D.D.S., of Oakland; Russel H. Cool, D.D.S., of San Francisco; F. J. Bethel, D.D.S., of San Francisco; and F. G. Baird, D.D.S., of San Francisco.

At the first meeting the Board organized by electing Dr. H. R. Harbison, President; Dr. F. J. Bethel, Treasurer, and Dr. F. G. Baird, Secretary.

At the meeting held on September 3d, the Secretary was authorized by resolution to secure from the preceding Board all of the books, funds, and other property to which the present Board is entitled, and on the 25th of November this Board did receive from the preceding Board the

sum of \$575.49 in cash, two volumes of minute books, copying-press, seals, dental register, desk, and various other articles.

The bond of the Treasurer was fixed at the sum of \$2,500, and his bond has been regularly approved.

Shortly after the Board took office, the majority of the members were served with an alternative writ of mandate, in an action entitled "Thomas A. Black, plaintiff, vs. Board of Dental Examiners of the State of California, H. R. Harbison, F. G. Baird, F. J. Bethel, F. R. Cunningham, J. M. Dunn, G. E. Schillig, and R. H. Cool, defendants." This was a petition on the part of Thomas A. Black, wherein he alleges that he had graduated from the San Francisco College of Medicine and Surgery on the 4th day of May, 1901, and had, on the 17th day of July, 1901, presented to the State Board of Dental Examiners, then in office, his diploma, together with a fee of \$10, and demanded that it issue to him a license to practice dentistry; that the said Board returned said diploma and fee to said Black, and he therefore prayed that an alternative writ of mandate be issued, directed to the Board of Dental Examiners appointed by your Excellency, to take office on the first day of September, directing that it issue said license, or show cause why it had not done so. This matter is still pending in the courts.

Believing that there would be considerable legal work which would require special attention, the Board unanimously elected Mr. E. Myron Wolf, an attorney practicing in the City and County of San Francisco, as its attorney; and in response to its request the Attorney-General of this State has given his permission and sanction to Mr. Wolf's acting as such.

Committees have been appointed by the Board to examine the work done by the various dental colleges in the State, and to report the results of their investigations to the Board.

Rules to govern the examination of applicants for licenses to practice dentistry are now under consideration by the members of the Board.

Considerable progress has been made in the work of securing a list of the legal and the illegal dental practitioners in this State.

It is impossible at this time to estimate the ultimate effect of the work of the present Board. The new Act has the support of a large majority of the profession throughout the State, and it is hoped that through its instrumentality the standard of the profession will be raised and the public benefited thereby.

The following is an account of all the moneys received and disbursed by the Board:

Receipts.

Received from preceding Board.....	\$575 49	
Two fees from applicants for next examination.....	30 00	
		<hr/> \$605 49

Disbursements.

Mileage and compensation of members.....	\$412 20	
County Clerk's fees in re Black vs. Board of Dental Examiners	2 00	
National Surety Company, Treasurer's bond	12 50	
Secretary, on account	20 00	
Attorney's fees.....	50 00	
Incidentals.....	12 35	
Cash on hand	96 54	
		<hr/> \$605 49

All of which is respectfully submitted by the Board of Dental Examiners of California.

December 1, 1901.

H. R. HARBISON,
President.
F. G. BAIRD,
Secretary.

BIENNIAL REPORT

OF THE

Commissioners to Manage Yosemite Valley

AND THE

MARIPOSA BIG TREE GROVE.

FOR THE YEARS 1901-1902.



SACRAMENTO:

A. J. JOHNSTON, : : : : SUPERINTENDENT STATE PRINTING.
1902.

REPORT.

To His Excellency HENRY T. GAGE, Governor of the State of California:

SIR: The Commissioners to Manage Yosemite Valley and the Mariposa Big Tree Grove have the honor to present the following report of their management for the years 1901 and 1902:

GENERAL IMPROVEMENTS.

Since the last report the chief addition to the permanent improvements of the Valley in the nature of buildings has been the construction of a new barn, stables, granary, wagon shed, and corral, at an expense of \$1,500. This was necessitated by the increase of travel into the Valley, calling for more room for the transportation companies. The contract for the building of these improvements was given to the superintendent of the stage company applying for the use of the same, so that in the construction the contractor had a personal interest, which we believe has redounded to the benefit of the State, in that a faithfulness of construction even to the smallest detail was encouraged by the knowledge of the contractor that he himself was to occupy the building.

A number of State buildings occupied by the different lessees have been improved and enlarged, all without expense to the State; all of these improvements, however, becoming immediately the property of the State.

A new photographic studio has been constructed, at an expense of about \$1,500, and the same is now the property of the State.

Owing to the smallness of the appropriation little could be done in the nature of permanent improvements outside of the ordinary repairs to and the maintenance of the buildings, roads, trails, and bridges in the Valley. The Commission has insisted upon the lessees keeping their places in a condition of neatness, and each week all of the buildings, yards, outhouses, etc., are inspected by the Guardian and his report as to their condition is forwarded to the Commission. The result of this has been a cleaner as well as a more sanitary condition of the grounds and buildings used by the lessees.

SPECIAL IMPROVEMENTS.

Under this head comes, of course, first in importance, the construction and installation of the electric light plant. For many years the Commission has asked for an appropriation permitting it to install such a

plant, as the need of such has been felt for many reasons. This Commission made a number of promises to the last Legislature when requesting it to allow a sum of money sufficient to install and construct such a plant, and all of these promises have been kept. Competitive bids were thoroughly advertised for, and the contract was finally awarded to Henshaw, Bulkley & Co., of San Francisco, they being the lowest and best bidder. The Commission is thoroughly satisfied that in the fulfilling of its contract the company has undertaken, first of all, to furnish and equip a plant that would serve as an advertisement of its own faithfulness as well as skill in construction. The Commission has been assured of this fact by the rivals in business of the said company, as well as by some of the unsuccessful bidders, and the Commission takes great pleasure, therefore, in reporting to your Excellency that the State of California has received for the money expended an excellent electric light and power plant, as well as one that is about as perfect in its construction and operation as modern skill can make it.

Many difficulties confronted the Commission in preparing the ground for the contractor, as we had agreed to do. The granite that had to be removed and tunneled through was of the extremely hard, flinty kind, which would not break under a charge of the strongest powder, but the plant as completed is substantial in every respect. The best of material has been used in the construction, and it will be many years before any renewal will be necessary, except in such small details as new lamps, etc.

Furthermore, the plant has been, and it will be the aim of this Commission to make it continue to be, self-sustaining. The charges for light service, to be paid by the lessees using the same, are sufficient to pay the running expenses of the plant, as well as to leave a little over wherewith to pay the cost of renewals and all slight repairs.

The power-house is situated at the head of the Valley, near the Happy Isles. The power is supplied through a pipe-line extending up the southern portion of the cañon and taking the water at the junction of the Merced River with the Illouette Creek, giving a 150-foot head. The road from the power-house to the hotel, a distance of about two miles, is lighted with incandescent lamps, distributed at reasonable distances apart. The hotel and all of the buildings around the hotel have been well supplied with light, so that coal-oil lamps and candles around the hotel are now a thing of the past. The plant has been all paid for. The amount paid to the contractor was \$20,322.

FIRE PROTECTION.

The last Legislature, in providing for an electric light plant, also provided for the erection of a water tank to increase the fire protection. Such a tank, holding fifty thousand gallons, has been constructed near

the hotel, so that at all times a large supply of water with sufficient force to throw a stream from the ground over the roofs of any of the buildings, a height of forty feet or more, will be assured. Inasmuch as the buildings are not allowed to be protected by fire insurance, this increased fire protection was a matter of dire necessity. The Commission has breathed easier ever since the tank was completed and filled with water.

INCREASED WATER FACILITIES.

The water system in the valley has been very materially enlarged upon and the supply of water increased by the construction of a pipe-line from the electric power-house to connect with the pipe-line leading from the former source of water-supply. The supply for some time has been inadequate for the needs of the Valley. With the increase of the number of buildings in the Valley obtaining water from one source, there would be times during the day when the supply would be insufficient for the common, ordinary needs of the buildings and their occupants. The Commission, however, with the two sources of water-supply—at the power-house and at the former source—at a very small cost, has entirely removed this evil.

IMPROVEMENT OF THE ROADS.

With the installation of the electric light and power plant comes a solution of the problem of bettering the roads in the Valley. That the roads should be improved is admitted by every one. No one has contended for it more strenuously than the members of this Commission, but with the small funds at our disposal it has been absolutely impossible to think of repairing the roads, because of the great expense of doing so. Not only would it have been an expense, but it would have been impracticable to have installed a steam rock-crushing plant in the Valley. Outside of the difficulty of obtaining fuel for the running of such a plant it would be exceedingly objectionable, as being out of harmony with the beauty and grandeur of the Valley. The same would have been an eye-sore to all lovers of Nature and could not be thought of for a moment. However, with electric power at hand, an easy solution of the difficulty presents itself. For about \$1,000 it will be possible, to buy a portable rock-crusher, together with a motor attachment capable of crushing twenty-five to thirty tons of rock a day. This rock-crusher can be hauled around upon trucks. It would be a matter of no expense and of little time to connect the motor with the transmission lines along the road and to crush the rock at the point where it is required. There is plenty of loose rock along the road, and there will be no necessity to quarry for road material.

TRAILS AND BRIDGES.

The trails and bridges have been kept up and renewed as necessity required. The bridge crossing the Merced River at the Happy Isles had to be taken out and a new one constructed. This was done at an expense of about \$450. New paths have been laid out for pedestrians as far as the funds of the Commission would permit. It is to be hoped that some day a complete network of these footpaths will be arranged, so that pleasant walks may be taken by persons fond of this form of exercise.

CAMPS.

Public camps for the accommodation of visitors to the Valley who prefer this kind of living in Yosemite Valley are no longer a novelty. It is about four years since the first public camp was authorized in Yosemite Valley, and during the past season three camps, well equipped with all the comforts of camp life, have been well patronized by the traveling public. The institution of these camps has made a trip to Yosemite Valley much less expensive, and many have made the trip to the Valley who have heretofore been deterred from doing so by reason of the expense. It has been, and shall continue to be, the aim of this Commission to encourage the maintenance of these camps. The cost of living at these camps does not exceed \$2 per day, which is as low a rate as can reasonably be expected, considering the great distance of the Valley from railroad terminals and the consequent expense of getting supplies into the Valley.

A NEW HOTEL.

For many years past, and especially since the destruction of the Stoneman House by fire, the great need of a new hotel which would be in keeping with the surroundings in the Valley has been apparent to everybody, but never so much as during the past season. The travel to the Valley during the past year has been the greatest in its history; about eight thousand visitors having made the trip. Were it not, however, for the lack of accommodations, this number would have been very greatly increased, perhaps doubled. During the height of the season, *i. e.*, during the months of May and June, large numbers of intending visitors to the Valley were refused transportation because of the utter lack of accommodations in the Valley, either at the hotels or at the camps. The season just concluded had scarcely begun when this Commission was informed by one of the transportation companies that it had already refused bookings for four hundred people; nearly all of these persons resided out of the State of California, having come to

California to attend the annual convention of certain bodies to which they belonged. This condition continued until after the end of June. At times it was impossible to shut off the travel, and the hotels and camps became so hard pressed for room for the guests that it became necessary to put two and three strangers in one room. The employés of the hotel and camps gave up their accommodations—some of them sleeping on blankets under the trees—in order to make room for the visitors. That this is no exaggeration will be attested by a number of the honorable members of the Senate, who visited the Yosemite Valley in the early part of June of this year. It seems a pity that the great State of California, with one of the greatest and most beautiful natural wonders known to the world, should not be actuated by a greater pride and furnish to the visitors within its borders who make or desire to make the trip to the Valley, accommodations that are somewhat in keeping with the grandeur of the surroundings.

We are of the opinion that a man who can afford but \$2 a day for his accommodations while in the Valley should receive as much consideration as the man who can afford to pay or is willing to pay much more. As proof of this we need but point to the public camps of which mention has been made above, and to refer to the honorable gentlemen of the Senate who made the visit to the Valley, as above referred to. At the same time, however, there are many who are not only able, but anxious to obtain better and more luxurious accommodations, for which they are able and only too glad to pay a corresponding price. There should be accommodations for the man who is willing to pay \$3 and \$4 and \$5 a day, and there should be accommodations for the man who is ready and willing to pay \$20 per day, and of the last mentioned class there are many. The best that we can offer to the visitor to the Valley to-day is a small room, with the bath-room removed probably fifty feet away. Everything connected with the hotel is cramped and utterly inadequate to supply the needs of the traveling public.

We believe that it will be a good financial investment for the State of California to construct in the Yosemite Valley a splendid and substantial hotel of granite, and equipped with all modern conveniences. We think that upon such a hotel not less than \$300,000 should be expended. The granite is right upon the ground, and if a new hotel is to be constructed at all it should be of granite and of nothing else. With such a hotel the rooms could be so constructed and the prices so graded as to meet the wants of all classes.

We stated that it would be a good financial investment for the State of California to build the hotel. We say this for this reason: By far the greater majority of the people who would patronize such a hotel would be tourists from outside the State of California. Their money expended while upon the trip to Yosemite Valley would all flow through

California's channels, and California would become the party benefited by reason thereof. It would be a good financial investment for another reason. It is to the interest of any State to advertise the beauties as well as the fruitfulness of its land, opportunity for investment, etc. The people of California, throughout the entire State, are beginning now to understand and appreciate fully the value of advertising. The greatest advertisement that the State of California has, from a scenic standpoint, is certainly the Yosemite Valley, and it helps to turn and increase the tide of travel this way. The tourist who desires and is willing to pay for accommodations, such as are contemplated, is generally a man of considerable means and of some position in the financial world. It is to the interest of California that everything possible should be done to send such people back to their homes fully impressed with the greatness of California, not only because of the opportunities for good investment, that she offers, but also because of her great natural wonders. But remembering the manner in which Eastern and European countries care for and maintain, as well as extensively advertise, such bits of natural scenery as they may happen to possess, what can be the estimate placed by the stranger upon the people of California when he discovers the niggardly manner in which is kept, maintained, and provided for, this, the greatest of natural wonders, besides which all others that the stranger has seen in his Eastern and European travels pale into insignificance? Few who have traveled to Yosemite have failed to hear these criticisms from strangers within our borders, and it is to be hoped that the sum suggested, to wit: \$300,000, will be appropriated by the Legislature for the construction of a new hotel. The State of California can not make a better investment.

We desire to call attention to the large appropriation and liberal policy of the Government with relation to the Yellowstone Park. As we understand it, the Government has appropriated \$750,000 for the improvement of the roads in the Yellowstone Park. The Yosemite Valley having been transferred to the State of California, it is the obvious duty of the State to deal as liberally with the Valley and provide as well for the interest of the public in connection therewith as the Government would have done. The State should do this for the benefit of its own citizens and of the citizens of the United States, and unless this policy is to be pursued and existing conditions improved, obviously the State should surrender the control of the Valley to the General Government.

Under existing laws it is practically impossible to arrange with private capital for the construction of necessary hotels or other improvements in the Yosemite, and obviously the broader and better policy is that the State should appropriate the money and receive the revenues and continue in full control of the Valley for the benefit of the public;

but if adequate appropriations can not be had and decent accommodations provided for the public desiring to visit and enjoy the Valley, then such amendments should be provided by law as will permit the use of private capital in the Valley; but, as above suggested, the better course is that the State should appropriate the money and continue to hold and control the Valley for the benefit of all of its citizens and of the citizens of the United States.

In addition to what has already been said, it is also suggested that, after the construction of the improvements contemplated and others urgently needed, the revenues legitimately derived from the Valley could be increased almost in proportion to the expenditures made therefor, so far as the annual revenues are concerned.

We also would suggest that this improvement is of such an urgent nature and is so immediately required that, if the revenues of the State would not permit an adequate appropriation for the same, the circumstances would not only warrant, but would demand, that such legislation be adopted as would permit the issuance of sufficient bonds to provide money for the proper improvement of the Valley. As already suggested, with these improvements made and the greatly increased travel that would naturally enter the Valley, properly provided for and accommodated, the revenues derived ought to be sufficient, and we think would be, to make the Valley absolutely self-supporting, so as to be of no further expense to the State.

CLEARING UNDERBRUSH.

There is nothing which should occupy the constant attention of the Commission more than the cutting out of underbrush. Owing to the lack of money the underbrush has been allowed to grow up throughout the Valley, seriously imperiling the larger timber in two ways: First, it saps the strength of the ground, as well as shuts out the sunlight and air, which are as necessary to the healthy growth and life of a tree as to a human being. In places the trees have grown up so thick that they are separated from one another by but a few inches, with the result that there is a grove of poles, unsightly to the eye and each one small and of stunted growth, instead of a wide, open grove of strong, healthy trees, presenting a pleasing aspect to the eye and at the same time affording a pretty vista through the trees.

The danger from fire to the entire Valley and all of the buildings contained therein, by reason of this dense undergrowth, is at once apparent; indeed, during the past few years the entire force of laborers in the Valley has been called upon to fight the fires, started in this dense undergrowth, that at times seemed ready to get beyond control. This is a matter that immediately appealed to the minds of the

honorable members of the Senate who visited the Valley during the past season. The Commission has always realized the need for a thorough clearing out of this underbrush, both on account of the danger from fire and because of its unsightly aspect, but lack of funds has again prevented any extensive cutting out.

LARGER APPROPRIATIONS SHOULD BE MADE FOR GENERAL WORK.

In this regard the Commission desires to call attention to this fact: There are constantly occurring situations which call for expenditures of large sums of money in order to save the Valley from some great destruction or loss; as for instance, during the storms of winter large trees are floated down the river and find lodgment on some bar or against the bank, and the river immediately begins to cut a new channel; it is necessary, therefore, in order to prevent great damage, to remove the obstruction and to strengthen the river banks. Last year the river began cutting its banks on the north side, just above the Sentinel Hotel bridge. In order to save Jorgenson's studio from being washed away, as well as to prevent the river from changing its channel from its present course under the bridge and near the hotel and cutting across the meadows half a mile away, it became necessary to construct a granite wall along the northern bank, extending from the hotel bridge and up about four hundred feet and past the danger point. This work cost about \$500.

Another instance of an expenditure of money rendered imperatively necessary is this: One of the bridges across the river at the head of the valley became unsafe for travel by four-horse teams; therefore, the bridge had to be replaced as soon as conditions would allow, and this cost \$450.

The trails and the roads at the opening of the season are covered with a heavy fall of snow. All of this must be cleared away and the roads opened before the season begins, in order to permit visitors to the Valley to go to the different points of interest. Frequently after this work has been done a late storm or a cloudburst washes out the trails and the work has to be done over again. This has occurred several times within the last few years, and all of this has to be paid for out of the appropriation made by the Legislature and from the rents paid by lessees in the Valley. During the last few years the amount of the appropriation has been \$10,000 a year; the rents amount to \$3,500 a year; making a total of \$13,500 a year available for general work. That this amount is grossly inadequate to supply even the pressing needs of the Valley must surely be admitted by every one who has given any thought whatever to the conditions in the Valley requiring

the expenditure of money. For this reason the Commission earnestly requests much larger appropriations if good work is expected to be done in the preservation of the Valley. Inasmuch as the State of California has accepted from the United States Government the trust of taking care of and maintaining the Yosemite Valley, to which full justice cannot be done by the use of any adjectives, however extravagant, the State of California should undertake to fulfill her trust properly and well and with credit to herself.

Appended hereto is a financial statement, showing the receipts and disbursements for the past two fiscal years.

Very respectfully submitted.

BOARD OF COMMISSIONERS TO MANAGE YOSEMITE
VALLEY AND MARIPOSA BIG TREE GROVE,

By J. J. LERMEN, Secretary.

FINANCIAL STATEMENT.

SHOWING RECEIPTS AND DISBURSEMENTS BY FUNDS FOR THE FIFTY-SECOND FISCAL YEAR.

Appropriation for Care of Yosemite Valley.		
By appropriation		\$10,000 00
Balance from fifty-first fiscal year		145 06
Construction of buildings and bridges	\$4,582 00	
Labor	2,417 19	
Office expenses	1,075 11	
Freight	479 87	
Supplies	1,532 62	
Advertising	5 00	
Blacksmithing	52 00	
Balance reverted to State Treasury	1 27	
		\$10,145 06

Appropriation for Care of Mariposa Big Tree Grove.		
By appropriation		\$1,000 00
Balance from fifty-first fiscal year		9 65
Labor	\$401 63	
Office expenses	333 15	
Supplies	24 87	
Constructing pavilion	250 00	
		\$1,009 65

Appropriation for Traveling Expenses.		
By appropriation		\$1,500 00
Balance from fifty-first fiscal year		745 50
Traveling expenses of Commission	\$591 70	
Balance reverted to State Treasury	1,653 80	
		\$2,245 50

Yosemite Fund.		
Balance on hand (last report)		\$2,411 59
By sales and rents of tents by Guardian		1,848 08
By rent account		3,552 00
Total receipts		\$7,811 67
Supplies	\$958 90	
Office expenses	622 55	
Labor	1,295 38	
Freight	612 32	
Advertising	14 00	
Balance	4,308 52	
		\$7,811 67

Resume.		
	Disbursements.	Receipts.
Appropriation for care of Yosemite Valley	\$10,143 79	\$10,145 06
Appropriation for care of Mariposa Big Tree Grove	1,009 65	1,009 65
Appropriation for traveling expenses	591 70	2,245 50
Yosemite Fund	3,503 15	7,811 67
	\$15,248 29	\$21,211 88
Reverted to State Treasury	1,655 07	
Balance to credit of Yosemite Fund	4,308 52	
	\$21,211 88	\$21,211 88

SHOWING RECEIPTS AND DISBURSEMENTS BY FUNDS FOR THE FIFTY-THIRD FISCAL YEAR.

Appropriation for Care of Yosemite Valley.

By appropriation.....		\$10,000 00
Supplies.....	\$2,005 09	
Labor.....	2,875 52	
Blacksmithing.....	81 40	
New buildings.....	2,574 00	
Office expenses.....	1,556 80	
Freight.....	898 74	
Balance to the credit of fifty-fourth fiscal year.....	8 45	
		<u>\$10,000 00</u>

Appropriation for Care of Mariposa Big Tree Grove.

By appropriation.....		\$875 00
Labor.....	\$466 83	
Office expenses.....	327 20	
Advertising.....	10 00	
Balance to the credit of fifty-fourth fiscal year.....	70 97	
		<u>\$875 00</u>

Appropriation for Traveling Expenses.

By appropriation.....		\$850 00
Traveling expenses of Commission.....	\$798 22	
Balance to the credit of fifty-fourth fiscal year.....	51 78	
		<u>\$850 00</u>

Yosemite Fund.

Balance on hand from fifty-second fiscal year.....		\$4,308 52
By rent account.....		5,318 50
By sales and rent of tents by Guardian.....		380 60
Total receipts.....		<u>\$10,007 62</u>

Labor.....	\$3,799 15	
Supplies.....	1,607 25	
Freight.....	356 05	
Advertising.....	85 60	
Blacksmithing.....	59 20	
Moving Chapel.....	350 00	
Balance to credit of fifty-fourth fiscal year.....	3,750 37	
		<u>\$10,007 62</u>

Appropriation for the Construction of an Electric Light Plant.

By appropriation.....		\$25,000 00
Labor building foundation for and setting up water tank.....	\$548 05	
Supplies, including tank and necessary piping to connect with water system.....	1,174 73	
Advertising for bids on electric plant.....	207 25	
Contract with Henshaw, Bulkley & Co., constructing electric plant, etc.....	20,322 00	
Labor preparing trench for pipe-line for electric plant.....	2,713 50	
Balance on hand.....	34 47	
		<u>\$25,000 00</u>

Resume.

	Disbursements.	Receipts.
Appropriation for care of Yosemite Valley.....	\$9,991 55	\$10,000 00
Appropriation for care of Mariposa Big Tree Grove.....	804 03	875 00
Appropriation for traveling expenses.....	798 22	850 00
Appropriation for electric light plant.....	24,965 53	25,000 00
Yosemite Fund	6,257 25	10,007 62
	<hr/>	<hr/>
Balance to credit of the appropriation for the care of the Yosemite Valley	\$42,816 58	\$46,732 62
Balance to the credit of the appropriation for the care of the Mariposa Big Tree Grove	8 45	
Balance to the credit of the appropriation for traveling expenses	70 97	
Balance to the credit of the appropriation for electric light plant	51 78	
Balance to the credit of the Yosemite Fund.....	34 47	
	<hr/>	<hr/>
	\$46,732 62	\$46,732 62

REPORT
OF THE
STATE VETERINARIAN.

DECEMBER 1, 1902.

DR. CHARLES H. BLEMER, STATE VETERINARIAN.



SACRAMENTO:
A. J. JOHNSTON, : : : : SUPERINTENDENT STATE PRINTING.
1902.

REPORT OF STATE VETERINARIAN.

SACRAMENTO, December 1, 1902.

To His Excellency HENRY T. GAGE, Governor of California:

DEAR SIR: I beg to respectfully submit to your Excellency my report as State Veterinarian.

The work as outlined by this office for the eradication of the *Boophilis annulatus* tick, the transmitter of Texas, Splenetic, or Southern cattle fever, is meeting with results far above my expectations, as the amount of territory reclaimed in this State from the United States Department of Agriculture restrictions is more than has been reclaimed by all the other infected States and Territories put together.

This work has been materially assisted by the action of the Boards of Supervisors of several of the counties below the State and Federal quarantine line, in appointing County Livestock Inspectors, to prevent the importation of infected cattle, and also to aid in establishing and maintaining quarantines on all infected cattle already within their districts.

I beg to submit a copy of a letter from this office to Dr. D. E. Salmon, Chief of the Bureau of Animal Industry, showing the amount of work accomplished this past year, also the amount of infected territory in seven of the counties immediately south of the State and Federal quarantine line:

Inclosed herewith I send you a communication from the honorable Board of Supervisors of Monterey County, also reports of Dr. G. F. Faulkner, County Livestock Inspector of said county, showing that the amount of "Texas fever" infection within that county is very little, and that they are keeping same under strict quarantine. I believe that this county will use every endeavor and precaution to control and eradicate such infection as now exists within its confines, and in consideration thereof, feel that some relief should be afforded them. The situation in Monterey County represents the condition relative to "Texas fever" infection in Merced, Madera, Fresno, Kings, Tulare, and Kern counties. Each of these counties is now employing a County Livestock Inspector, who has been particularly active during the past year making inspections for and quarantining any "tick infection" which they discovered. According to these investigations, Merced County has only one infected ranch, and that very slight, extending over the line from Madera County, while Madera has two pretty badly infected areas. Fresno has some four or five pretty badly infected spots, but all in one district on the Kings River bottoms. Tulare County has, by three years' hard work, succeeded in getting this infection down to one ranch, which has been under quarantine for the past two years, and has very little infection remaining. Kern County's infection is rapidly being eradicated by the nonuse of their tick-infested ranches, and the work will be continued until the county is absolutely free from the disease. While I shall not ask the Bureau to place any of the above-mentioned

counties north and above the Federal quarantine line, until absolutely certain that no infection remains, I nevertheless feel and respectfully ask that cattle from the above-mentioned counties be permitted to move, at any season of the year, to points in the State of California, and also to such adjoining States and Territories as will accept them, provided, they first pass competent inspection for contagious and infectious diseases.

Owing to climatic conditions there is practically no more danger in allowing these cattle to move at any time of the year than there is during the months of November, December, and January, while if permitted shipment on special inspection, it will add a stimulus to the work of eradicating infection, now being attempted by the above-named counties, besides granting clean cattle the privilege due them.

Should the Bureau see fit to favor this State with such an order, I wish to suggest that it be made conditional upon the attitude of the county in promoting livestock sanitation within its own district, and suggest that the proposed order include the counties of Monterey, Merced, Madera, Fresno, Kings, Tulare, and Kern.

In reply to the above letter, I received the following from Dr. Salmon, dated November 26:

Referring to your letter of the 19th instant, inclosing a communication from the Board of Supervisors of Monterey County, your recommendation concerning the counties named will be incorporated in the regulations for the coming year, concerning Southern cattle transportation. I do not think it advisable at present to place the counties named above the Federal quarantine line, but the shipment of cattle from these counties will be allowed for cattle which you have inspected and found free of infection. I judge that the counties named in your letter have adopted regulations for restricting the spread of infection in each county, and that they will look after this matter within their own district.

The above modification of the Federal restrictions is an innovation in work of this character, and is fully appreciated by the cattlemen of the district above-mentioned. I hope to see this plan of inspection work extended to the remaining counties of California south of the quarantine line, and believe that another year will accomplish it.

The cattle interests of California have suffered more from the ravages of anthrax during the past year than from any other cause. Several quite severe outbreaks have occurred in the low lands of Solano, Sacramento, Yolo, San Joaquin, and other counties in that valley. We also experienced an outbreak in Calaveras County, occasioned by taking cattle, which had contracted the disease in San Joaquin County, into the foothills of Calaveras, where the disease broke out. While the loss in this outbreak was quite heavy, and occasioned much uneasiness to neighboring stockmen, I gave it as my opinion that, owing to the altitude and drainage of the pasture where the infected cattle were taken, also to the precautions observed by the owner in burning all dead animals, the disease will not manifest itself next year.

Outbreaks of this disease are generally experienced during the months of August, September, and October, but we had several outbreaks this year in November. The anthrax bacillus will live in undrained soil for years, and is practically impossible to eradicate; but as vaccination will confer immunity, this office advises owners who have infected areas to follow this precaution, and numerous stockmen who have suffered

severe losses in past years from this disease are materially reducing their losses by so doing.

Blackleg, an infectious disease of young cattle (calves and yearlings), is quite prevalent throughout, not only all of California, but the whole western country, and has caused some loss to our cattlemen; but as most stockmen know that vaccination will prevent this disease, it is extensively practiced, and the loss is correspondingly low.

It is impossible to estimate the losses sustained by the hog-raisers from hog cholera and swine plague. These diseases exist in many parts of the State, and severe outbreaks have been experienced in the Sacramento and San Joaquin valleys. While both of the above-mentioned diseases are very contagious, and the mortality very heavy, they yield readily to sanitary measures, which, if properly applied, obviate the spread of the disease.

Glanders, a most malignant and contagious disease of horses and mules, exists to a considerable degree in many parts of the State, and should receive the close attention of local authorities. This office uses every endeavor to find such animals, and, if discovered, invariably orders their immediate destruction. Twenty-six horses and mules affected with this disease have been destroyed during the past year under my direction.

Verminous bronchitis of calves, a disease due to a small nematoid or hair-like worm of the *Strongylus* species (*Strongylus micrurus*), is producing great loss in certain districts of this State. An outbreak in Fresno County occasioned the loss of over four hundred out of a bunch of five hundred and fifty calves. This disease has either been recently brought into California, or has been overlooked and the trouble pronounced some other disease. While there are some eight species of the strongyli which live in the air passages of domestic animals, that producing the disease in the Fresno outbreak has been recognized as the *Strongylus micrurus*, and are from one half to three inches in length. It is believed that the embryos directly thrown out by the female into the bronchi of their host do not develop there, but must be expelled from the animal in order to pass the first stages of their existence. They will live in water for months, and it is stated that the embryo, in a certain stage, will become revived on being placed in water after having been dried a year or more. When the worms are not very numerous the symptoms are infrequent and dry cough, which gradually grows stronger and more husky, ending in paroxysms and suffocation. The coughing expels from the mouth or nasal cavities, mucus sometimes streaked with blood and containing the worms and embryos. Should the disease progress slowly the symptoms are milder, but the animal rapidly emaciates, owing to disordered nutrition, loss of appetite, etc. Owing to the hardness of this worm, the various kinds of treatment used have

availed but little. Internal treatment, inhalation, and intertracheal injections have been used, combined with bitter, stimulating tonics, etc., but with unsatisfactory results. Our ignorance of the life history of the parasite renders any prophylactic measures rather uncertain, recognizing, however, the utility of drying and draining damp pastures, and the destruction of the lungs of animals killed by the malady. Until more is known about the worm and its manner of entering the host, we can not expect to cure the diseased animals, nor to prevent young animals from contracting the disease when placed on infected pastures.

White scours, diarrhea, or dysentery in calves, is a disease affecting calves from a few hours to as many days old, with a mortality ranging from fifty to ninety per cent. Symptoms: Calf leaves off sucking; restless; bellows, and ejects by violent efforts a very soft diarrhoeic excrement, which soon becomes liquid, whitish, or mixed with clots of curdled milk, which are very often bloody; later, we notice continued and involuntary evacuations. Calf lies down most of the time, and is in an exhausted condition. Those that survive are sickly and weak for a long time. Recent investigations show the disease to be an infectious one, due to specific bacteria, and that the mode of infection is generally through the unhealed navel cord. Investigations in the way of finding a preventive have met with marked success from disinfection of navel cord, and the following suggestions are made for use on farms where the disease is prevalent: Cows ready to calve should be provided with clean, dry bedding until after birth of calf. The cord should be tied with clean string (previously disinfected with lysol solution) and cord cut below ligature. The stump of the cord and the umbilicus should be washed with the following solution: Rain water, 1 quart; crystals of iodine, 30 grains; iodide of potassium, 60 grains. The disinfection of the umbilicus and the cord should be followed by coating the umbilicus with a solution consisting of methylic alcohol, 1 quart; crystals of iodine, 30 grains. The operation should be closed, after the alcohol has evaporated, by coating the cord and umbilicus with a thick layer of iodine collodion (1 per cent), applied with a brush. Once the collodion is dried, the calf may be left to the care of its mother. Care should be taken to keep the stables and barnyards thoroughly disinfected. Stockmen who may be interested in this disease, and who may use the above suggestions, will kindly oblige by reporting results to the State Veterinarian.

At the request of the State Commission in Lunacy, I personally applied the tuberculin test to the dairy herds at the Stockton, Agnews, Napa, Highlands, and Ukiah State Hospitals for the Insane.

At Stockton, sixty-two (62) cattle were tested, with the result that forty-eight (48) of them reacted, and upon post-mortem examination, held in the presence of several members of the State Board of Health,

and the medical staff of the above-mentioned institution, were proven to be affected with and suffering from tuberculosis. In explanation will say that the disease was known to have existed among this herd for several years, and in view of unsanitary conditions could not but spread very rapidly. The herd was replaced by thoroughbred shorthorns of a very high character, which were tested before being purchased.

At Agnews, forty-nine (49) cattle were tested, five (5) of which reacting were destroyed, and on post-mortem examination shown to be badly infected with tuberculosis.

At Highlands, thirty-five (35) cattle were tested, four (4) of which reacted.

At Napa, sixty-three (63) cattle were tested, showing only one animal which might possibly be infected, but on account of her extremely nervous temperament, I did not deem it advisable to condemn her. This cow was subsequently ordered destroyed by the Napa Board of Directors, and on post-mortem was found to be free from this disease.

At Ukiah, I found the cattle very wild, and lacking proper facilities for handling them, which could only be accomplished by tying them up in the sun where they would be annoyed by flies, I did not make the test.

Permit me to say that tuberculosis exists to an alarming degree among the dairy herds of this State, especially in and around the larger cities, where many herds supplying milk for consumption contain anywhere from fifty to ninety per cent of cows which are affected with this disease, and which would be revealed if the tuberculin test were applied by a competent, trustworthy inspector. The matter of testing dairy cattle for tuberculosis should receive the attention of not only this but every other State, for, notwithstanding the views of that eminent German specialist, Doctor Koch, I am firmly convinced that tuberculosis is too frequently transmitted from cattle to human beings. In support of this statement I beg to submit the evidence tendered the American Health Association by its committee on animal diseases and animal foods at the meeting held in Buffalo, N. Y., September 16, 1901. As direct evidence of the communicability of tuberculosis from the bovine to the human, the above committee submitted the following cases to establish: (1st) The accidental infection of man by inoculations with the bovine bacilli; (2d) The infection of man by consuming the milk of tuberculous cows.

"The first and most important line of evidence is that obtained from accidental inoculations of men with bovine bacilli. Ravenel has put on record three cases of veterinarians in the State of Pennsylvania who were accidentally inoculated with bovine tuberculosis in making post-mortem examinations. Case one was accidentally wounded in the knuckle of his forefinger. The wound healed badly and a nodule soon

formed which showed a decided tendency to ulcerate. After some weeks he had the nodule removed, and a section of the excised portion was found to contain a large giant cell, but tubercle bacilli were not satisfactorily demonstrated in the preparation. The nodule recurred after excision and was finally cured by treatment in the hot-air apparatus. Case two was Ravenel's assistant, who scratched his knuckle on the broken end of a rib in performing a post-mortem on a goat which had succumbed to an experimental inoculation with a culture of bovine tubercle bacillus. The wound healed promptly, but about three weeks after became reddened, swollen, and sensitive. It grew worse and was finally excised with a margin of healthy skin. Two guinea-pigs were inoculated subcutaneously with a portion of this nodule, and both of these developed a generalized tuberculosis. Case three, a well-known veterinarian of Philadelphia, wounded the knuckle of his forefinger in making an autopsy on a tuberculous cow. Between three and four weeks afterward the scar was noticed to be enlarged, reddened, and sensitive. It showed no tendency to improve and grew worse, was excised some six weeks after inoculation, and the wound cauterized. The nodule was examined by Dr. John Guiteras, who demonstrated its tuberculous nature by finding the bacilli in sections.

"L. Pfeiffer cites the case of veterinarian Moses, thirty-four years old, of healthy family and personally in good health, who pricked his left thumb in making an autopsy on a tuberculous cow; the point of the knife probably penetrating into the articulation of the first and second phalanges. The puncture healed without suppuration, but at the end of six months there formed a cutaneous tubercle, and the joint was removed. Soon afterward the patient began to cough, and died of phthisis eighteen months after the accident. On opening the articulation of the thumb it was found filled with caseous masses extraordinarily rich in tubercle bacilli.

"A very interesting case of 'primary subcutaneous tuberculosis,' caused by the topical application of cream, was reported by Dr. Grothan (Omaha clinic, '96). A little girl, six years old, had suffered from an eruption of the left leg, supposed to be due to ivy poisoning. This was treated at home by the topical application of cream. When seen by Grothan there was a painless ulcer of irregular shape the size of a 25-cent piece on the posterior aspect of the leg, having the characteristic appearance of a tubercular ulcer, with reddish-tinged border, which was covered with granulations and watery pus. There were also about a dozen light mahogany-colored spots confined to the calf of the leg and the lower third of the thigh, varying from the size of a hazelnut to the half of a large walnut, and containing masses of caseous material. The cow was examined and the udder seemed normal, yet inguinal and intraperitoneal inoculations of two rabbits with a mixture of milk and cream

gave positive results in both inoculations. The caseous material from the nodules of the girl's leg injected into the peritoneum of a rabbit produced tuberculosis and death in three weeks. The family was using the milk from only one cow at the time.

"A similar case was recorded by Coppez. A girl, seventeen years old, had a wound on the plantar aspect of the third finger, which became infected with tubercle bacilli during milking. The original lesions gave rise, within six months, to over thirty-five subcutaneous abscesses situated in different parts of the body. Most of these were curetted and iodoform applied six months after the beginning of the disease. Subsequently more appeared, in all from sixty to sixty-five, with one eye becoming involved, and after several months death ensued. The nature of the affection was demonstrated by inoculating a rabbit.

"A third case of tuberculosis communicated by inoculation with infected milk was reported by Priester. A young man employed on the docks tried to remove a number of tattoos from his hands and forearms by introducing milk into the tattooed parts by means of needle punctures. This operation was repeated several times. Later there appeared on the back of both hands, at points which had been treated on the same day, bright red spots the size of millet seeds, containing a yellow center. Pus was evacuated from several nodules. These were found to be lupus nodules (tuberculosis of the skin) in which giant cells were demonstrated. The diseased parts were cut out and the wound healed without recurrence of the trouble.

"M. T. Naughton, Chicago, Ill., communicated to the committee the following case which was observed in his practice: G. E. W., Pole; age, 34; weight, 170 pounds; healthy-looking man; butcher by occupation. Family history negative. Father of three healthy children. Has no recollection of having been previously sick. On May 3, 1899, while cleaning cattle viscera, he fell and a stationary meat hook upon which hearts and lungs are hung penetrated through the right hand between the second and third metacarpal bones. *A. tendo vaginitis* resulted, with some lymphangitis of the arm. He received the usual treatment for an infected wound and apparently made a good recovery, with, however, some limited motion of the fingers and a sensitive scar at the site of puncture. Four months afterward an abscess formed in the axilla, which was cleaned out and tubercle bacilli were demonstrated in the broken-down gland tissue. At this time there was no soreness in the arm lymphatics or the elbow gland, but he complained that there had been. In three months afterward, or seven months from the original accident, he died from pulmonary tuberculosis.

"These are very clear cases and could be multiplied if necessary to add strength to the evidence. These cases demonstrate the susceptibility of man to infection by bovine bacilli inoculated into the skin or subcuta-

neously. Not only were local lesions produced, but in some cases the disease was generalized and ended in death. The value of such cases of inoculation in demonstrating the susceptibility of man has been questioned on the ground that the lesions resulting from inoculation of the skin are slight and remain localized. While it is true that they remain localized in some cases, they have sometimes been attended by fatal results, and in all cases appear to be as serious as similar inoculations with the human bacillus. The human bacillus is known to be pathogenic for man, and it causes one of the most fatal of human diseases. Now, if the bovine bacillus when inoculated in the skin produces at least as serious results as the human bacillus, we have a right to conclude that mankind is equally susceptible to the bovine as to the human form of the contagion.

"The second class of evidence to which the committee refers is the clinical observation of individuals infected by the ingestion of milk. One of these frequently cited is a case reported by Ollivier to the Paris Academy of Medicine. Twelve girls contracted tuberculosis in a young ladies' boarding-school. Of these, five died. From the fact that the sick and diseased girls were descended from healthy ancestors and, above all doubt, showed the phenomena of intestinal tuberculosis, there was suspicion of infection through the food. Full confirmation of this suspicion was found in the slaughter of a cow which for a year had served as a source of milk-supply for the school. The cow had extensive tuberculosis of the intestines and udder. This case has particular value, because of the number of persons affected, the fact that they had intestinal tuberculosis, and the demonstration of udder tuberculosis in the cow.

"Another case is cited by T. P. Kirkpatrick. This was the case of a daughter of a Dr. Gosse, of Geneva, reported by himself. The girl up to the age of seventeen had been quite healthy and had no history of hereditary taint or predisposition to tuberculosis. Early in 1893 she became ill, with more or less vague or undefined symptoms, and died in some ten months. Gosse performed a post-mortem examination, and discovered extensive tuberculosis of the mesenteric glands and abdominal viscera. While trying to find the source of infection in this case, his attention was drawn to a small farm which he possessed in the country and which he had been accustomed to visit on Sundays with his daughter, and one of her chief delights was to drink the milk from the cows there. On examination, four of the five cows were tubercular and two had disease of the udder.

"Lydtin gives the following case: Doctor Stang, of Amorbach, was called to a finely developed five-year-old boy, the son of healthy parents, with no hereditary taint in their ancestors. The boy died a few weeks later with miliary tuberculosis of the lungs and enormously

enlarged tubercular mesenteric glands. It was learned that the boy had habitually drank the milk of a cow which had been killed shortly before he died and which had shown pulmonary tuberculosis.

"Mr. Howe, of North Hadley, Mass., lost a son twenty months old from abdominal tuberculosis three months after he paid a week's visit to his uncle and had been fed with the milk of the uncle's cow. The cow was killed soon after and proved to have generalized tuberculosis. The child's sickness and wasting began a few weeks after he returned home. He had previously been strong and healthy, as were and are his parents.

"A four-year-old son of Colonel Beecher, of Yonkers, and grandson of Henry Ward Beecher, died March 4, 1894, of tubercular meningitis, and the two Alderney cows which supplied him with milk were proved tuberculous by the tuberculin test and post-mortem examination. There was no hereditary taint.

"A Scotch family, strong and healthy, had a herd of cows which contracted tuberculosis. Two daughters brought up on the milk died of tuberculosis, while two older brothers, using little or no milk, remained well and hearty.

"These are examples of clinical evidence which might be greatly extended, but are all, of course, open to the objection that we do not know absolutely that the disease was caused by the bovine bacillus. However, the occurrence of abdominal tuberculosis soon after the use of milk from tuberculous cows is a coincidence which justifies us in accepting the cases as strong circumstantial evidence, not of themselves demonstrating the communicability of bovine tuberculosis, but, taken with other evidence, making a case which is difficult to contest."

In concluding their report the committee states: "The people of the United States have always demanded meat and milk from animals which are free from disease, and there is no apparent reason why they should depart from this rule, and be expected to consume the products of animals affected with tuberculosis. Animals so affected often have mixed infection, with high temperatures, the formation of pus in different parts of the body, particularly in the mammary glands, and there is undoubtedly in many cases a considerable development of toxins. The flesh of such animals must be affected in the same way as is that of animals affected with other fevers and septic conditions. The extensive development of tubercular lesions in the udder affects the secretion of milk, changes its composition, causes the secretion of great quantities of pus which are mixed with the milk, and leads to the development of a great variety of fungus-developing germs, which multiply in the milk, producing various decomposition products. The consumption of food of this character has always been considered harmful, especially

to children. It may seriously affect the digestion and cause diarrhœa and other forms of illness by the toxins taken.

"The discussion as to the communicability of bovine tuberculosis should not obscure the general question of the importance of condemning meat and milk of diseased animals, whether the disease is or is not a specific one which may be communicated to the consumer of those products. There is no argument to justify the sale of milk secreted from tuberculous udders, reeking with pus and the micro-organisms which it contains, changing its composition, and certainly unsavory to every civilized person. The question of the desirability of measures against bovine tuberculosis is a thing by itself, and entirely distinct from the desirability of such measures from an economic and general public health standpoint."

Personally, I do not believe in the compulsory destruction of all animals reacting under the tuberculin test, but recommend that such animals be marked or branded and excluded, under severe penalty, from milking purposes. The intelligent dairymen, and especially the creamery owners, are very anxious to see competent inspection inaugurated along these lines in California, and which would undoubtedly result in the saving of many lives, and control the spread of this scourge among livestock.

Respectfully submitted.

C. H. BLEMER,
State Veterinarian.

REPORT

OF THE

STATE VETERINARY MEDICAL BOARD

OF THE

STATE OF CALIFORNIA.

JANUARY 5, 1903.

REPORT.

LOS ANGELES, CAL., January 5, 1903.

To His Excellency GEO. C. PARDEE, Governor of the State of California:

SIR: In compliance with law, the State Veterinary Medical Board has the honor to submit its report of its proceedings, together with an account of all moneys received and disbursed.

The members comprising the Board are as follows:

DR. W. E. D. MORRISON, D.V.M., President	Los Angeles.
DR. W. J. OLIVER, V.S., Secretary and Treasurer	Los Angeles.
DR. FOX, D.V.S.	Sacramento.
DR. STREETS, D.V.M.	Ventura.

The Board met twice a year, according to law, and examined all diplomas presented, and issued licenses to each graduate after examination of same, the Board being satisfied as to their authenticity.

The following is a statement of all moneys received and disbursed by the present Board since July 1, 1899, to date:

<i>Receipts.</i>	
Amount brought forward	\$6 07
Examination of diplomas	135 00
Licenses issued	135 00
Total	\$276 07

<i>Disbursements.</i>	
Traveling expenses and per diem of members of the Board ..	\$170 00
Stationery, postage, and expressage	63 22
Rent of rooms, and incidentals	18 25
Total	\$251 47
Balance on hand	\$24 60

The following is a list of graduates to whom certificates have been issued from January, 1899, to January, 1903:

Williams, W. L.	San Francisco	Ramage, H. J. R.	Pomona
Blemer, C. H.	Sacramento	Murray, John J.	Redding
Lee, A. O.	Pomona	Hoover, B. F.	San José
Sullivan, J.	Suisun	Leavey, E. N.	San Francisco
Garland, J.	Santa Barbara	Twining, Frederick N.	Fresno
Howard, T. B.	San Diego	Murray, Michael J.	Los Angeles
Fenimore, H. D.	Los Angeles	Mazza, Ralph	Petaluma
Parks, Ion W.	Pasadena	Somers, James	San Juan
Sarenson, A. J.	Modesto	Keefer, George H.	San Francisco
Ramage, A. L.	Riverside	Waddle, John G.	Stockton
Fisher, Carl W.	San Mateo	Dell, J. A.	Redlands
Connoly, William A.	Fullerton	Otomo, Hezo	Los Angeles
Ward, Archibald R.	Berkeley	Tritton, R. L.	Los Angeles
McLean, J. N.	Woodland		

All of which is respectfully submitted by the State Veterinary Medical Board of the State of California.

W. E. D. MORRISON, D.V.M.,
President.

W. J. OLIVER, V.S.,
Secretary.

REPORT

OF THE

COMMISSIONER OF PUBLIC WORKS

AND ENGINEERS,

TO THE

GOVERNOR OF CALIFORNIA.

FRANK D. RYAN,	-	-	-	-	-	-	-	COMMISSIONER.
M. A. NURSE,	-	-	-	-	-	-	-	CHIEF ENGINEER.
GEO. N. RANDLE,	-	-	-	-	-	-	-	ASSISTANT ENGINEER.
W. H. HEUER,	-	-	-	-	-	-	-	CONSULTING ENGINEER.

1901-1902.



SACRAMENTO:

A. J. JOHNSTON, : : : : SUPERINTENDENT STATE PRINTING.
1902.

REPORT OF COMMISSIONER OF PUBLIC WORKS AND ENGINEERS.

SACRAMENTO, December 18, 1902.

To His Excellency HENRY T. GAGE, *Governor of California:*

SIR: Under an Act of the Legislature, approved March 27, 1897, there was appropriated, out of any money in the State Treasury not otherwise appropriated, the sum of \$300,000, to be paid to the Auditing Board to the Commissioner of Public Works, to be expended in executing plans of river improvement recommended in a report of the Commissioner of Public Works, dated November 16, 1896, which report was adopted by the Legislature "and made the basis of operations for promoting drainage and improving and rectifying river channels, as far as practicable, to be carried out and finished as provided" in the Act.

Necessarily under this Act, all river improvement, so far executed, has been along lines recommended in said report, which has been made the basis of operations, so far as could be with available means. The plans therein outlined in a general way have been perfected, approved by the Government Board of River Engineers, and introduced upon our navigable rivers.

Under this Act, as interpreted by the Attorney-General in a written opinion, dated April 29, 1898, the Commissioner was limited in jurisdiction and operation to the Sacramento River, from the mouth of Feather River to the Newtown Shoals; and on the San Joaquin River, from Stockton to its confluence with the Sacramento River.

Under a subsequent Act creating a Commissioner of Public Works, defining his duties, powers, etc., approved February 9, 1900, the powers and jurisdiction of the Commissioner and Auditing Board were enlarged and extended to a broader field of investigation and improvement.

The work thus far completed has fully convinced us that the theory advanced in the report of 1896, for promoting navigation, reclamation, and drainage, must be accepted and fully supported, if success be eventually achieved.

GOVERNMENT'S JURISDICTION.

Section 3 of an Act of Congress, approved July 13, 1892, entitled "An Act making appropriations for construction, repair, and preservation of certain public works on rivers and harbors, and for other purposes,"

provided: "That without permission of the Secretary of War, it shall be unlawful to build any wharf, pier, dolphin, boom, dam, weir, break-water, bulkhead, jetty, or structure of any kind outside established harbor lines, or where no harbor lines are or may be established, in any port, roadstead, haven, harbor, navigable river, or other waters of the United States, in such manner as shall obstruct or impair navigation, commerce, or anchorage of said waters; or to excavate or fill or in any manner to alter or modify the course, location, condition, or capacity of the channel of any of the navigable waters of the United States, unless approved by the Secretary of War."

Such national provision for care and protection of navigable waters might seem harsh to a State like California, whose reclamation and drainage interests demand river improvement beyond existing commercial requirements (the extent of Governmental consideration), were it not for the promptness and courtesy uniformly displayed by the Government in securing permission from the Secretary of War to introduce any meritorious plan for promoting drainage and improving and rectifying channels, as provided for in the legislative Act under which we are operating. Experience has, however, convinced us of the wisdom and economy of such national control as a safeguard against expenditure in valueless river work, because the plan, character, and influence of the proposed improvement must now be reviewed and indorsed by Government engineers specially qualified by study and experience to deal with river problems, before permission to introduce the same can be obtained from the Secretary of War.

It is our purpose in this report to fully present, by accompanying cuts and illustrations, the plan, character, extent, and location of all river work so far done by this Department toward carrying out the recommendations submitted in the report of the Commissioner of Public Works, under date of November 16, 1896, with some brief testimonials from those who are best prepared, from familiarity with river conditions, past and present, to pronounce upon results that have followed their introduction; and to offer recommendations for such additional channel rectification as will establish and maintain better conditions for navigation, drainage, and reclamation on the San Joaquin, Mokelumne, Sacramento, and other rivers of the State.

In this connection, your careful attention is invited to the accompanying report of the River Improvement Association of California. The recommendations for river improvement therein made have our earnest support.

The general plan outlined by the Association harmonizes completely with plans of relief made after due consideration and careful investigation of the recent flood disaster which was caused by insufficient channel areas below Rio Vista to carry off safely the flood discharge.

The execution of these plans will afford ample and direct channel way for the Sacramento River flood waters across the head of Sherman Island to a perfect tidal outfall in San Joaquin River and Suisun Bay by a route fully six miles shorter than the present tortuous channel around Horseshoe Bend and over the Emmaton Shoals.

The certain result of such channel correction will be a greater current velocity to maintain channel integrity against shoaling, to enlarge and extend tidal action, benefit navigation, and effect security to the vast reclamation interests of the lower river by facilitating flood-water escape, at greatly reduced elevation.

To insure relief, the completion of the proposed improvements is of the utmost importance. The advancement of the hampered commercial and industrial interests of the State is dependent thereon.

DIVERSION FROM THE RIVER CHANNEL MUST BE RESTRICTED.

The numerous deep cuts or crevasses through the natural banks of the Sacramento River below Colusa, caused by broken levees and long-continued wash through them, allow fully three fourths of the flood waters to escape into Sutter and Yolo basins, annually inundating over four hundred square miles of exceptionally fertile land, returning again to the river through Cache Slough in a cut-off route fully fifty miles shorter than the river channel, all of which greatly aggravates flood conditions below.

The flood flow from the river to these basins through deep crevasses now continues until the low-water stage of summer shuts off diversion; thus prolonging the period of basin inundation which, if not wholly prevented, could, with proper regulation, be limited to flood period only.

Such unrestricted, unnecessary, and injurious diversion of flood volume from the river so reduces the velocity in the channel that its capacity to carry material in suspension is impaired. As a result, deposit of silt has been made in the channel until the bottom of the river, in many places, between Sacramento City and the mouth of Feather River, has been raised several feet above the low-water plane of 1854.

Above the junction of Feather River with Sacramento River, the latter is as deep to-day as it ever was; conclusively showing, by the difference in channel areas above and below the entrance of mining tributaries, that the waters below are taxed with mining silt beyond their carrying capacity, and that channel filling has resulted.

Channel changes recently made by the Department in cutting off bends for the San Joaquin River, clearly show that diversion of over one half of the volume to the new channel has soon resulted in filling

the old one, by making its current too sluggish to longer maintain its sediment in permanent suspension.

If this be a result of diversion of the San Joaquin River waters, which carry in flood periods not over half the material carried by the Sacramento below the junction of the mining tributaries, how certain must gradual channel impairment, particularly in the upper river, where no tidal scour prevails, follow the continued diversion of over three fourths of the Sacramento flood to the Sutter and Yolo basins.

Over one third of the carrying capacity of the river channel between Sacramento City and the mouth of Feather River has been destroyed by channel filling. To deepen and restore, we must restrict diversion and utilize the river channel to its fullest carrying capacity consistent with easy maintenance of levees for confinement of river floods.

The erosive and transporting power of water is entirely governed by its velocity. The former, as the squares of velocities; while the transporting power has even a greater relation to the same. By this we may determine that a current velocity of four feet per second has just four times the erosive force of a current having a velocity of two feet per second. Then if variations of velocity be sensibly equal to the variations of discharge, as many authorities hold, how important it must be to restrict diversion of silt-bearing flood to limited time and least possible volume, over wide waste weirs, whose crest elevations should be as near the high-water line as safety will permit.

The unrestricted diversion through deep cuts and the consequent filling of the channel below the mouth of Feather River demonstrate this truth: Diversion of water from the channel, after we have passed that limit necessary to preserve sufficient velocity to maintain its sediment in suspension, will surely result in filling the channel and raising the flood surface higher.

These damaging conditions exist between Clarksburg and the mouth of Feather River, and must be remedied if navigation be improved and flood disaster averted.

The National Government is committed to a policy of preserving navigation only; and Government expenditures for river improvement are limited to commercial necessities.

Enlarge the agricultural production by development of resources adjacent to the river, and an increased commercial necessity will present itself to command the efforts of the National Government in providing and maintaining sufficient waterway to accommodate the greater tonnage.

The problems of drainage, channel deepening, and flood-water disposal are essentially of State interest and benefit, and it is idle to ask or expect Government aid to promote them, beyond commercial demand for river deepening, unless there be special authorization by Congress.

From compilation of data, based upon complete surveys, examinations, and observations of the State Engineer Department, under the able direction of Wm. Ham. Hall, particularly during the flood periods when channel areas and slope of the river were definitely known throughout the river's valley course and its discharge capacity accurately measured, and results embodied in a report to the legislative session of 1880, we find the following to be the most vital recommendations for river channel improvement and flood disposal, which were indorsed by the late Col. G. H. Mendell, of the U. S. Army Engineers:

"First—Removal of the bar, or Chain Island, at the point of junction with the San Joaquin River, opposite Collinsville; to be effected through the medium of scouring action of waters confined to a channel of proper width by jetties.

"Second—Removal of the bar just above Rio Vista, opposite Newtown, and the enlargement of the Rio Vista channel past Wood Island; to be effected by the construction of jetties from the mouth of Old River channel to the head of Wood Island.

"Third—Widening of the channel and protection of Sherman Island in the Horseshoe Bend, just above Emmaton."

It should be borne in mind that these improvements were recommended for the safe disposal of ordinary floods of the valley; that it is impossible to estimate the volume of water that may at some time in the future come down the valley; and, as in the past, there have been such phenomenal rushes of water as the 1852 or 1862 floods brought down, there may yet follow others so great that permanent security can not be provided against inundation of some sections, either by channel deepening or other methods for control.

The following modified recommendations for lower river improvement and flood control, based upon investigation and recent flood observations, must commend themselves (as a study of the accompanying map of the lower river will show) as the cheapest and most effective plans of channel improvement for navigation, reclamation, and drainage that can be introduced below and above Sacramento City.

RECOMMENDATIONS FOR THE SACRAMENTO RIVER.

First—A new channel for the Sacramento River from the point of Horseshoe Bend, directly across Sherman Island, to a free tidal outfall in the San Joaquin River; the channel to be 1,200 feet wide, with a depth of 10 feet below low tide level, and to be made by dredger excavation.

Second—The enlargement of the channel past Wood Island, by excavating a strip off the west side of the island 200 feet in width and 1,500 feet in length to a depth of 10 feet below low tide level, with a similar

excavation along the right bank of the river for widening the channel opposite to and above the lower end of Brannan Island.

Third—Deepening and improving the river channel between Sacramento City and Knight's Landing, either by the introduction of mechanical appliances for excavating material or through the introduction of jetties for scouring the channel and transporting the silt.

To perfect the channel rectification above outlined, will require an excavation, by dredger and displacement by jetty systems, of approximately 5,800,000 cubic yards of material from the proposed river channel and banks in the two narrow reaches of the river, apportioned as follows: 5,000,000 cubic yards from Sherman Island cut-off; 300,000 cubic yards from Wood Island and the river bank below; 500,000 cubic yards from the river channel above the city of Sacramento.

A liberal allowance for cost of excavation would be nine cents per cubic yard, making a total of \$522,000 to complete the work.

With the river channel thus rectified, flood disposal would be facilitated by a more direct alignment with ample channel area to a free tidal outfall. The high-water line would be lowered fully three feet at the junction of Old River, Steamboat Slough, and Cache Slough; Horse-shoe Bend, Emmaton Shoals, and Chain Island at the mouth of the river, would be eliminated. The damaging influence of cross currents at the confluence of the San Joaquin and Sacramento rivers would be obviated, and a well-defined river channel, easier to improve and maintain, instead of one winding in devious ways through an open and shallow bay, would skirt the Contra Costa shore.

The concentrated flow of waters along the shore line of the bay would tend to deepen the channel by scour, and eventually provide a waterway sufficient to accommodate the traffic of important manufacturing interests already seeking wharf privileges there.

HYDRAULIC DREDGER.

The conditions for efficient and economic operation of a hydraulic dredger in making the channel rectification recommended for the lower Sacramento River are generally favorable.

The ability of such a dredger to make cheap, even phenomenal excavation, where the lift is low and the soil may be deposited near its field of operation, is universally recognized. Hence, there can be no question of its economical use within tidal limits.

The patent for hydraulic dredgers has expired. There is now no royalty to pay to patentees.

A dredger which may be used either as a clamshell or suction machine, with a capacity of fully 3,000 cubic yards per calendar day, can be constructed at a cost of \$100,000, and operated at a daily cost of \$155.



MAP OF THE
LOWER SACRAMENTO
&

SAN JOAQUIN RIVER

SHOWING PLANS
FOR PROPOSED IMPROVEMENT



This would bring the cost of excavation down to about five cents per cubic yard.

Such a plant, bought and owned by the city of Portland, Oregon, is now being successfully used by the United States Government for improving the Columbia River.

The River and Harbor Act of Congress, approved March 3, 1899, making appropriation for improving the Sacramento River from Sacramento City to its mouth, provides that "The Secretary of War is hereby authorized to accept from the State of California the use of any dredger or appliance owned or controlled by said State conformably to any offer thereof by the said State; and the Secretary of War is hereby authorized to use any such dredger or appliances in any river or harbor improvement that may be prosecuted therein by the United States, either on the part of the United States alone or jointly with said State; *provided*, that nothing shall be paid to the State of California for the use of said dredger, and that nothing herein contained shall create any liability against the United States."

The general beneficial effect of having such a dredger available is not confined alone to the economy in the work it would do, but it would serve as an important influence in regulating the price of any State work that might be offered for contract.

Its disadvantages lie in the fact that, whether working or not, its cost for maintenance would always be considerable and variable in amount.

In all river work so far done, we have been guided by the theory that no plan of improvement for navigation or flood relief can be recommended that does not comprise, as its essential features, channel deepening through shoals and bars and the establishment of requisite conditions for greater and more uniform carrying capacity by increase of current velocity and channel area.

To accomplish this result, the escape of flood water from the channel must be regulated in volume and duration to absolute requirements for levee preservation, through the introduction of wide waste weirs with crest elevations as near high-water plane as safety will permit.

We thus utilize the utmost carrying capacity of the river, consistent with levee maintenance. We transport the floods through the channel for scouring purposes, and reduce the harmful influence of floods escaping through the basins via cut-offs, where in reëntering the river they suddenly rush upon and overtax the capacity of the channel below.

The following briefly stated is hydraulic law: "If the normal volume of water in a silt-bearing stream, flowing in an alluvial bed of its own formation, be permanently increased, there will result an increase of velocity, and, consequently, of erosive and silt-bearing force, an increase of cross-section, and an ultimate lowering of the surface slope."

Hence, the demand for a system of improvement that will exact the utmost duty of the channel in regularly passing the floods.

Neglected and broken levees, with crevasses cut through the river banks to such depths as will permit unnecessary diversion of flood waters to the adjoining basins, occasion a converse result by lessening the volume in the channel beyond requirements for safety, reducing current velocity, consequently the erosive and silt-bearing force, causing deposit to fill the channel and ultimately raising the surface slope.

The laws of flowing water in channels, natural and artificial, as enunciated by accepted authorities upon hydraulics of rivers, have been so fully determined by extended experiments on so many rivers and streams under varying circumstances, that problems for river improvement and flood control may be solved with practical certainty of beneficial results.

Certain laws of hydraulics have been experimentally determined by gaugings, measurements, and observations of results of plans introduced for the improvement of navigation and flood control on the Mississippi River, so that the influences from changing channel alignment may be predicted with practical accuracy.

Humphreys and Abbot, in a report upon "Physics and Hydraulics of the Mississippi River," after elaborate review and compilation of facts gathered by full and scientific investigation of flood phenomena, certainly adduce no conclusion beyond warrant of the facts.

The following hydraulic law has been fully established: "A cut-off raises the surface of the river at the foot of the cut nearly as much as it depresses it at the head." "The country above the cut is relieved only at the expense of the country below." "If a series of cut-offs be made, the heights of the floods will be regularly decreased from a point midway in the series to the upper end, and regularly increased from the same point to the lower end."

The Tisdale break, in Sutter County, before closure, formerly lowered the flood height of the upper Sacramento River fully six feet near the point of outflow from the river. If the flood plane rises at the confluence below relatively with its lowering at the point of diversion above, what plan, other than the confinement of flood waters to the utmost carrying capacity of the channel, regulating the outflow over waste weirs to such volume as levee preservation may require, can be introduced for uniform presentation of flood volume throughout the river channel?

If a channel area sufficient for the safe disposal of 200,000 cubic feet of flood water per second be required below the confluence of Old River, Steamboat Slough, and Cache Slough, under existing conditions of flood presentation to that reach of the river, there may arise emergencies when the same flood volume above would be differently presented below

through new breaks in the levees or cuts through the river bank, permitting larger flood volume to escape from the channel above and rush through Yolo Basin to a confluence with the river at Cache Slough, thus overtaxing its capacity of discharge, raising the flood plane, and causing disaster to reclamation interests adjacent thereto.

No provision for flood disposal and control can be intelligently determined, or economically introduced, while new breaks or cuts in the levees, or through the river banks, are allowed to occur, to disturb the regularity of flow with each succeeding flood.

A channel below, made ample for all ordinary flood disposal when regularly presented through the river, may, under neglect to utilize the fullest carrying capacity of the channel, be confronted with a rush of water through the Sutter and Yolo basins, to overtax channel capacity below and raise its flood plane disastrously.

With the completion of improvements recommended for the lower river and the establishment of conditions for exacting full and uniform carrying capacity of the river above, by means of ordinary levees along the banks, there will no longer exist any question of the capacity of the river below Sacramento City to safely transport the ordinary flood volume and avert the disaster to reclamation interests in the lower river that must inevitably attend the sudden and irregular rush of three fourths of the flood waters through Sutter and Yolo basins, to pile up in the channel below Rio Vista, where measurement and flood disaster have shown channel area to be too small for its safe disposal.

The flood waters of the Sacramento River, except the flow of Georgiana Slough, which is always from the Sacramento to the San Joaquin River, are collected below the confluence of Old River, Steamboat Slough, and Cache Slough into one channel, and from this point dam capacity for safe flood disposal must be provided.

RECOMMENDATIONS FOR IMPROVEMENT OF THE SAN JOAQUIN RIVER.

Channel correction should be made for the San Joaquin River near where the Calaveras River enters. The estimated cost of such improvement is \$25,000.

The proposed channel straightening would promote interests of navigation and drainage and harmonize with the better influences for channel preservation that will follow the execution of a proposed Government canal for diverting the Mormon Slough waters, across country above Stockton, to an outfall through the Calaveras River, where the greater tidal action of the San Joaquin River will counteract the tendency to deposit silt and obviate both the difficulty of navigation and the annual expense of dredging the Stockton Channel.

Congress has authorized the expenditure of \$225,000 for the Mormon Slough diversion to the Calaveras River, upon the condition that the

city of Stockton or the State of California secure the right of way. This will require an outlay of \$60,000.

The proposed canal is wholly in the interest of navigation and drainage, essentially State interests, and should, in our opinion, meet with legislative approval and the necessary appropriation to secure right of way.

On the Tuolumne River, and in the right bank of the San Joaquin River just below the mouth of the Tuolumne, deep cuts or breaks through the river bank permit excessive diversion of water from the river channel during stages when all the water is needed there to conserve navigation. This should be remedied by closing the breaks and introducing a waste weir for limiting the escape of water to flood periods only.

Such weirs have been introduced by the National Government both above and below this point (at Laird's Slough and Paradise Cut), and fully serve the purpose of maintaining the channel integrity against deposit, by confining an efficient volume of water for scouring purposes within banks. Such protection could be effected for \$15,000.

MOKELUMNE RIVER.

Investigations of conditions along the Mokelumne River above New Hope Landing disclose the fact that adjacent land-owners have made extensive and expensive channel corrections by cutting off several abrupt bends, with purpose to facilitate flood-water escape and restore navigation to points above New Hope Landing as original conditions permitted.

The channel above New Hope Landing is full of snags and fallen trees. Navigation, which formerly extended fully eight miles farther up the river, is now completely cut off at the landing. Tidal action is impeded. Flood-water escape is dangerously retarded and navigation is destroyed. Improvement must be effected if flood disaster is to be avoided and navigation restored.

We recommend an appropriation of \$40,000 to be expended in channel improvement and snag removal, upon the condition that the land-owners and other beneficiaries first effectually clear the river banks of all standing or overhanging trees for a distance of one hundred and fifty feet from each shore line of the river, or other places where this Department may indicate.

APPROPRIATIONS RECOMMENDED.

The recommendations of this Department require an appropriation of \$522,000 for proposed improvement upon the Sacramento River, to be expended principally in straightening and enlarging the channel below

Rio Vista, where it has long been known to be absolutely inadequate for safe flood transmission (as it always will be, unless artificially enlarged), and in closing the deep cuts through the river banks above, for exacting greater duty of the river channel between even moderate levees, with provision for regulating necessary diversion during dangerous flood waves over wide and shallow waste weir outlets located at selected points along the river banks.

The additional sum of \$140,000 is sought for suggested improvements on the San Joaquin and Mokelumne rivers.

The total seems enormous, until compared with the property loss from even last year's flood devastation of such broad and fertile areas as are embraced in Ryer and Brannan islands, and the Egbert and Lisbon districts of the lower river. Here the great levees surrounding these districts have been washed away by the recent flood, and must be rebuilt to restore the fruitfulness of the devastated areas.

Under existing river conditions we must expect frequent recurrence of flood disaster through channel filling.

If we build up the navigability of our rivers to the approaching commercial demands of our State's certain industrial progress, we shall not only render existing reclamation interests secure from flood disaster, but insure easy reclamation and marvelous fruitfulness to hundreds of square miles of low lands now annually given over to the floods.

We can not improve navigation without benefiting reclamation, but vast sums of money may be sent in efforts at reclamation without even incidental benefit to navigation.

SAN JOAQUIN RIVER IMPROVEMENTS.

San Joaquin' River improvements, so far, consist of completed cut-offs Nos. 3, 4, 6, 7, and 8. No. 5 yet remains to be done, but probably on an amended location from that of the original.

Navigation has been improved and promoted by channel shortening and deepening; bend resistance eliminated; tidal range materially enlarged, and flood-water escape so facilitated as to lessen the danger of inundation of the City of Stockton and the great reclamation interests adjacent to the river and neighboring sloughs.

The following letters are on file in this office:

STOCKTON, CAL., 1900.

HON. FRANK D. RYAN, *Commissioner of Public Works, State of California*:

DEAR SIR: The river improvements so far executed, under the direction of the Commissioner of Public Works, for the promotion of navigation on the San Joaquin River, are a pronounced success in deepening and straightening the river channels, thus lessening the difficulties and delays in transportation over the former tortuous route, and so facilitating the flood-water escape as to render the adjoining vast reclamation interests practically secure against spasmodic floods.

The City of Stockton is now practically, if not wholly, protected against such disastrous inundations as have occasionally occurred under former river conditions.

We take sincere pleasure in congratulating your Department upon the efficiency and character of the river improvement made, and trust your further contemplated work may not be hampered in execution.

(Signed:) W. E. HARRISON,
Mayor of the City of Stockton.
C. E. WILLIAMS,
President of Board of Trustees.
J. J. QUINN,
Member of Board of Trustees.
E. C. DICKINSON,
Member of Board of Trustees.
W. C. NEWMILLER,
Member of Board of Trustees.
A. J. TURNER,
Member of Board of Trustees.

STOCKTON, CAL., 1900.

HON. FRANK D. RYAN, *Commissioner of Public Works for the State of California*:

DEAR SIR: The river improvement and channel rectification already executed on the San Joaquin River, are of vast benefit to the great commercial and industrial interests of our State and Valley, far reaching in effect, extensive in feature, and permanent in character. With the completion of the comparatively little further improvement, now in project, there will be a vastly improved waterway from the City of Stockton to deep water.

Most respectfully,

(Signed:) CALIFORNIA NAVIGATION AND IMP. CO.
J. W. GLENN, Assistant Manager.

STOCKTON, CAL., 1900.

HON. FRANK D. RYAN, *Commissioner of Public Works, State of California*:

SIR: The importance of the San Joaquin River improvement, executed under authority of the State, cannot well be overestimated.

It should become the fixed policy of the State to aid the National Government in the restoration and preservation of our navigable streams, since they have little of national importance, though of such vital importance to the State commonwealth.

The money appropriated is being wisely and economically expended in promoting California's greatest interests.

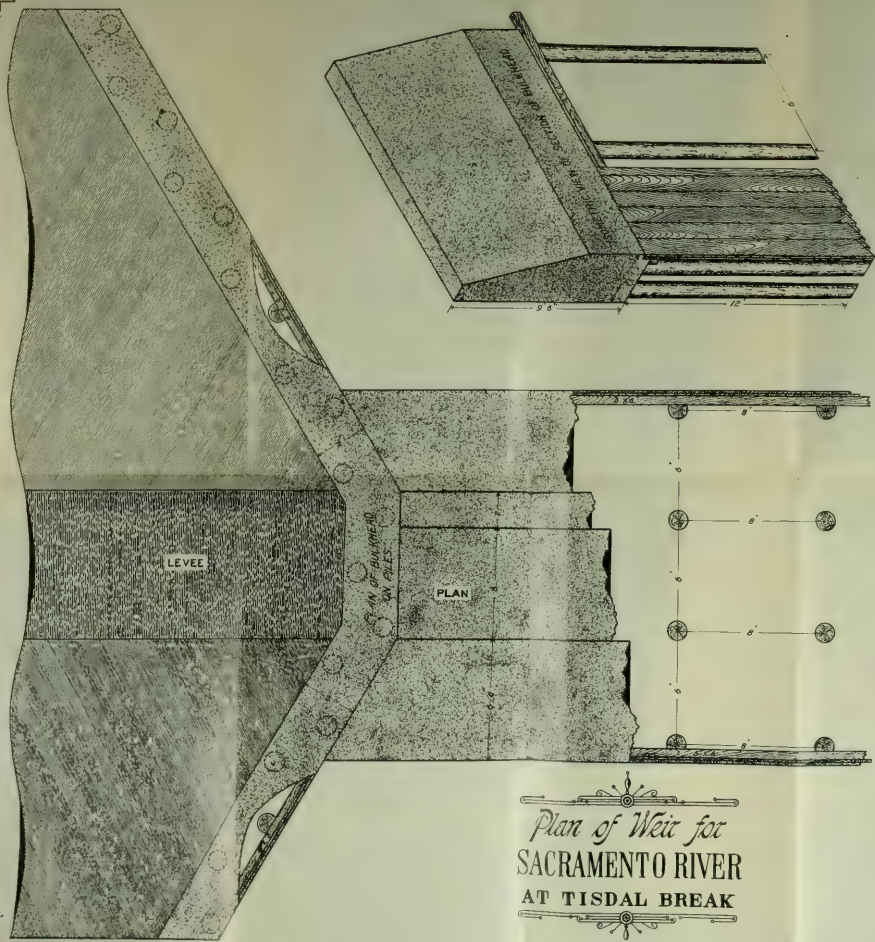
We take pleasure in commending the progress made, and trust further river improvement, on lines suggested by your Department, may be made.

Respectfully yours,

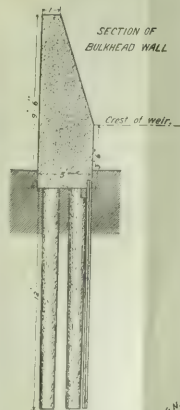
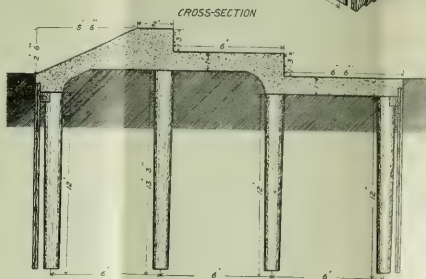
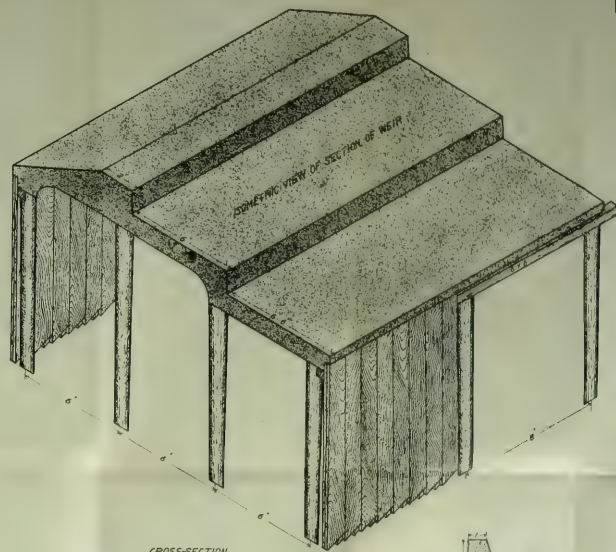
(Signed:) UNION TRANSPORTATION CO.,
Per JOHN M. PERRY.

IMPROVEMENTS MADE ON THE SACRAMENTO.

These consist of two concrete waste weirs, one at Tisdale break in Sutter County, 1,200 feet in length, and a similar one 2,000 feet in length located two miles above Elkhorn Landing in Yolo County; a cut-off through Snaggy Bend, above the mouth of Feather River, and another for straightening Cache Slough at its confluence with the Sacramento; a \$2,500 contract for removal of snags in improving and maintaining navigation above Colusa, and a jetty system aggregating 6,000 feet in length for removal of Newtown Shoals.



*Plan of Weir for
SACRAMENTO RIVER
AT TISDAL BREAK*

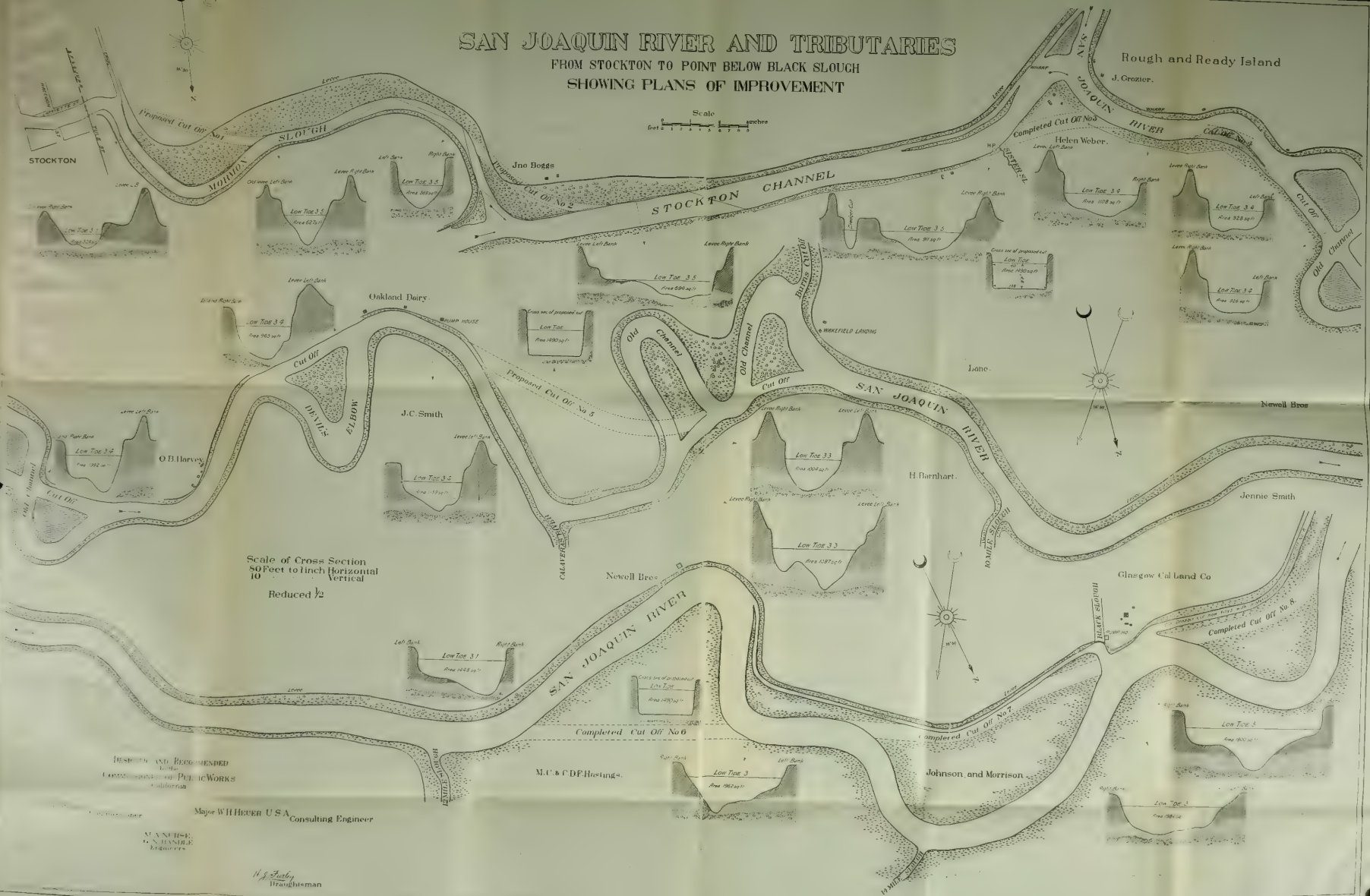


Scale $\frac{1}{4}$ inch to 1 foot.

SAN JOAQUIN RIVER AND TRIBUTARIES

FROM STOCKTON TO POINT BELOW BLACK SLOUGH

SHOWING PLANS OF IMPROVEMENT





COMMISSION OF PUBLIC WORKS
CALIFORNIA

Map Of A Portion Of The
SACRAMENTO RIVER
SHOWING PROPOSED IMPROVEMENT

Scale, 500 ft. to 1 inch.
REDUCED 1/2

F. D. RYAN, COMMISSIONER. 1900 M. A. NURSE, CHIEF ENGINEER.
W. H. MEYER, CONSULT. ENGR. G. N. HANDLE, ASST. ENGINEER.

Reference to accompanying maps will show location and character of the work so far done by this Department.

WASTE WEIRS.

The concrete overflow weirs, with length and crest elevations so adjusted to flood conditions as to permit only the necessary escape for dangerous flood waves, have been designed as an absolute necessity for preserving the navigation of the river against the injurious influences of great and uncontrolled diversion through crevasses in the levees and river banks, furrowed out to a depth nearly corresponding to the low-water plane.

Through the introduction of these weirs we exact the utmost safety duty of the river channel for transporting floods for channel deepening; thus preserving the great reservoir capacity of the adjacent basins from exhaustion until flood relief becomes a necessity.

SNAGGY BEND CUT-OFF.

This cut-off shortens the line of transportation about one and three fourths ($1\frac{3}{4}$) miles and obviates the difficulties of navigation around an abrupt river bend, locally known as "Snaggy Bend."

NEWTOWN JETTY SYSTEM.

Just below the junction of Old River, Steamboat Slough, and Cache Slough, a bar of sand formerly extended diagonally across the river, nearly 3,000 feet in length. This bar, known as Newtown Shoals, acted as a submerged dam having a crest elevation less than six feet below the low-water plane, save in a narrow channel through which the steamers plied, where some greater depth prevailed.

These shoals have long been regarded as a menace to navigation, and a hindrance to the free outflow of flood waters.

In 1856, Governor Bigler, in his message to the Legislature, recommended an appropriation for their reduction in the interest of navigation.

More recent investigations by the State Engineer Department, under Wm. Ham. Hall, and all others who have studied their influence, have shown their injury to interests of navigation and drainage by restrictive influence upon tidal action and flood-water escape.

This Department has since completely reduced the shoals by the introduction of a jetty system extending from the left bank of the river so as to contract the waterway to a conservative width along the Solano County shore.

The concentration of the river flow through influence of the Newtown

jetty system has more than doubled the depth of water through the shoals. Navigation has been improved, and tidal action, the essential element for lower river preservation, has been enlarged and extended many miles up the river. The river has been deepened about twelve feet, and the cross-sectional area of the channel has been doubled through the shoals.

RESULTS.

As a result of river deepening through influences of recent improvements, the river slope below Sacramento has been reduced until the range of tidal action has extended to Sacramento City. Twenty-two years ago, according to State Engineer Hall's report, the tidal action was not perceptible above Haycock Shoals, fully ten miles below Sacramento.

The importance of tidal flow in forming and preserving river channels, particularly in a stream like Sacramento River, whose waters are, at times, taxed beyond power to maintain its sediment in suspension, should be readily admitted when it is known that twice in each twenty-four hours the tidal volume passing back and forth through the Straits of Carquinez is greater than the flood flow past Sacramento City.

Transportation between Sacramento and points below has been less hampered by shallow water and bar obstruction during the low water of the last three summers than for many years prior, notwithstanding the gauge at the foot of K street registered, this summer, over a foot lower water than we had during the summers of 1896, 1897, 1898, before our work was executed.

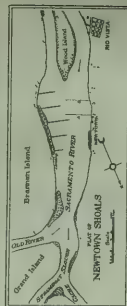
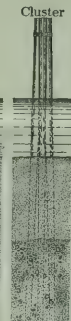
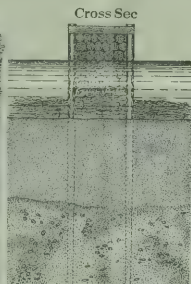
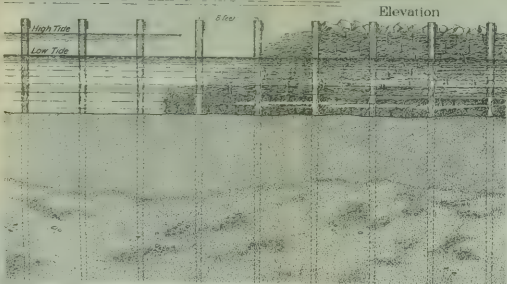
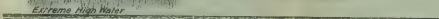
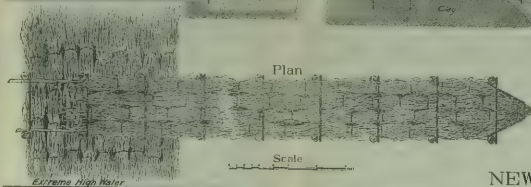
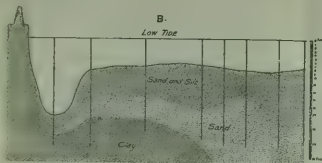
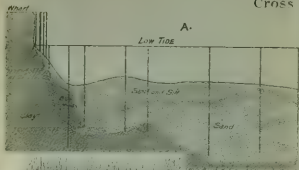
BEAR RIVER.

The valley of Bear River, lying westerly from the town of Wheatland, in Yuba County, formerly embraced about 7,000 acres of most fertile bottom land, through which a well-defined river channel, ample in carrying capacity to transport all ordinary flood waves without injurious overflow, originally coursed its way to the Feather River.

All this is now changed to a field of waste, occasioned by deposits of sand and slickens, varying in depth from 5 to 20 feet, thickly overgrown with trees and tangled brush.

Occasionally an abandoned old house, with a few surviving fruit trees half-buried in the avalanche of detritus from the mines above, still stands to mark the field of destroyed husbandry along the banks of Bear River of the past, but the identity of the old channel has been so completely filled by deposit of silt and sand that the unconfined flood waters, following lines of least resistance through the irregular openings in the general tangle of undergrowth, now course their way in changing channels, shifting from one side to the other of the valley of sand as

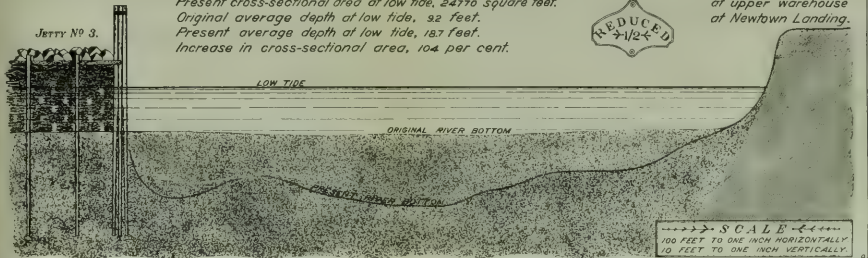
Cross Sections



Cross-section of Sacramento River at Newtown Settles.

*Original cross-sectional area at low tide, 12140 square feet.
Present cross-sectional area at low tide, 24770 square feet.
Original average depth at low tide, 32 feet.
Present average depth at low tide, 137 feet.
Increase in cross-sectional area, 104 per cent.*

*Right Bank of River
at upper warehouse
at Newtown Landing.*



the varying flood forces and opposing clumps of undergrowth or drift may direct. New channels are thus being constantly furrowed out, and the material borne down to find lodgment in the navigable rivers below.

There can be no doubt that the navigability of both the Feather and Sacramento rivers is the more injuriously affected by such uncontrolled flow of Bear River flood waters; for, spreading as they now do over a broad area of silt and plowing out new channels, wherever accidental influences may concentrate the flow, there can be no limit to the amount of material dislodged and carried to the navigable rivers below, unless a well-defined channel may be trained through the great reservoir of silt now stored over the valley, leaving all this deposit, save for channel requirements, to remain where it has been lodged by former floods.

The channel of Bear River, above the town of Wheatland, where the flood waters have been confined between reclamation levees, has shown material deepening and improvement within the last few years. A recent experiment, consisting in the extension of these levees to a point about two miles below Wheatland, practically following surveys and plans made by this Department and executed by the beneficiaries of such improvement, has demonstrated the practicability of channel building by the action of flood waters within defined limits. The encouraging results of the limited work recently done on these lines are clearly shown in the transformation of long waste and overflow lands to profitable farming in diversified produce.

Under the better and prevailing conditions due to restricted mining operations tributary to Bear River, we believe it possible to provide and maintain a sufficient channel for ordinary flood disposal, in such manner as to better conserve the navigability of the rivers below, from the vast body of silt stored in the valley above, and to restore to profitable occupation about 7,000 acres of Bear River valley land now devastated by uncontrolled flood and matted undergrowth.

It is gratifying to learn that efforts of the land-owners along the lines suggested have lately directed the flood waters of Bear River through a straight channel way from which the trees, drift, and underbrush were cleared and burned under the direction of the Commissioner of Public Works.

Better channel formation by confinement of flood flow within limits has resulted, and considerable area of land, for long years abandoned, has been restored to profitable husbandry along the banks.

SPECIAL SURVEYS.

At the instance of proper State authority, an investigation for determining the possibility of developing a water-supply adequate for domestic purposes, protection against fire, and the establishment of an electric

plant to furnish power and light for the Home for the Care and Training of Feeble-Minded Children of the State of California, was made by this Department, which resulted in the development of ample water for domestic and fire purposes. The old water system was abandoned and a new one, ample in supply for domestic and fire purposes, was constructed.

Folsom Sewage Plant.—A survey, plan, and specifications for a pumping plant, for disposal of the Folsom sewage through utilization on the prison farm, were made from this office and submitted to the Prison Directors and State Board of Examiners for approval. The plant conforming to the recommendations is now being installed.

Southern California Pumping Plant.—A contour survey of the lands of the Southern California Hospital, with estimate of cost and recommendations for installing a supplemental plant for better irrigation of the hospital lands, was made at the instance of the State Board of Examiners and the Commission in Lunacy. An electric plant of the power and capacity recommended has since been installed.

Ione Industrial School.—A survey, plan, and specifications for supplemental reservoir, filter plant, and new pipe-line for perfecting a system of water-supply for the school were made and submitted to the Board of Trustees by this Department. The pipe-line has since been executed.

Brush Revetment.—Plans of brush revetment and mattress work for protection of banks against erosion that threatens levee maintenance along the front of various reclamation districts have been prepared and submitted to the management of such endangered interests with full estimate of cost and complete instructions for economical introduction of the same.

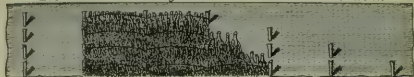
CONCLUSIONS.

In conclusion, we must express our thanks for and our appreciation of the interest the State Administration has shown in furtherance of river improvement; the unselfish and trying labors of the Auditing Board, which has, without cost to the State, discharged every duty with fidelity; of the courtesy shown and the active assistance rendered by the U. S. River Board of Engineers, in investigation of menacing conditions and preparation of remedial plans.

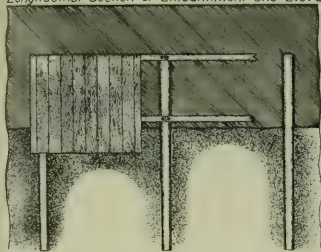
Two hundred and ninety thousand dollars has been expended by this Department in introducing river improvement plans. No equal extent of similar public work has ever been done by corporation or individual effort for equal or less outlay.

We fully believe that every plan, so far introduced, will serve as a

Elevation of Training Wall with Brush Revetment.

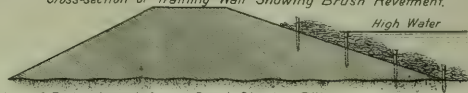


Longitudinal Section of Embankment and Elevation of Piling.

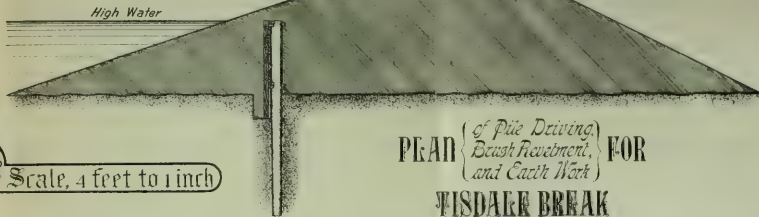


REDUCED
7/12

Cross-section of Training Wall Showing Brush Revetment.



Cross-section of Embankment Across Break Showing Piling.



Scale, 4 feet to 1 inch

PLAN { of Pile Driving,
Brush Revetment,
and Earth Work } FOR
TISDALE BREAK

C. A. P.

factor in the complete system of river improvement that must sooner or later be introduced to build up the navigability of our rivers to the industrial, agricultural, and commercial needs of California's full development.

Respectfully submitted.

FRANK D. RYAN,
Commissioner.

M. A. NURSE,
GEO. N. RANDLE,
Engineers.

REPORT OF THE COMMITTEE OF TWENTY-FOUR OF THE RIVER IMPROVEMENT AND DRAINAGE ASSOCIATION OF CALIFORNIA.

GENTLEMEN: Your Executive Committee beg to submit the following report, indicating the methods used to examine into the conditions of navigability and drainage of channels of Sacramento River and tributaries; stating the conclusions reached, and embodying recommendations for the improvement thereof.

On the 28th of June, 1902, the entire Committee appointed at a mass meeting of people interested in swamp lands, held May 6, 1902, taking advantage of the courteous invitation extended to them by the Honorable, the Commissioner of Public Works, left Sacramento on the tug "State of California" to examine Sacramento River. They were accompanied by Col. W. H. Heuer of the United States Engineering Corps, and Messrs. M. A. Nurse and George N. Randle, Engineer and Assistant Engineer, respectively, of the Department of Public Works. Stops at Sherman Island and at other points of special interest were made, and the entire river to its mouth at Collinsville was examined.

Starting from Rio Vista next day, the Committee drove to Suisun, also over the ground where it has been urged to construct a so-called "cut through the Montezuma Hills" for the relief of the overflow of Yolo Basin and flood waters of Putah Creek, Cache Slough, and Steamboat Slough. Denverton and Maine Prairie were also visited, and much valuable data concerning flood marks, elevation, nature of the soil, etc., were gathered.

The following day the same tug enabled the Committee to visit Sacramento River above Sacramento City up to the Tisdale weir, the new cut-off below Knight's Landing, and also the Elkhorn weir.

The Committee take great pleasure in referring with grateful acknowledgment to the hearty and genial reception extended to them at the various localities visited; this is particularly true of their reception at Rio Vista and Suisun, where committees of citizens had gathered to receive and entertain them, and to take them for a drive in carriages to visit points in the neighborhood of special interest to the Committee and its work. At those points, as well as at all others along their line of examination, much enthusiasm in the work to be undertaken was shown; much faith in the new activity and purpose was evidenced.

Your Committee received everywhere abundant proof that the time for action has come, and that the State and the people are ready to support those who will lead and push active measures for the obtainment of the end sought.

Sacramento Valley is traversed in its entire length of about 262 miles by a noble stream, destined to be a great boon and blessing to the State, not only affording a highway to deep-sea and inland commerce, but also, by the drainage and irrigation it can furnish, becoming the means of great wealth and prosperity to the adjacent lands.

Springing from the flanks of Mount Shasta, the little Sacramento is soon joined by Pitt and McCloud rivers, and after emerging from Iron Cañon at Red Bluff, reaches Jacinto, the point where the channel begins to claim our special attention, inasmuch as the banks below that point are low enough to make overflow possible. Fourteen miles below Knight's Landing, Sacramento River is joined by Feather River, a silt-bearing stream, and just above Sacramento City by American River; one and one half miles above Rio Vista the confluence of Sacramento River and Cache Slough and Putah Creek occurs, a circumstance fraught with serious results.

Unless discharged through breaks or escaping over the Elkhorn weir, all the water discharged by upper Sacramento, Feather, and American rivers must pass the channel from Sacramento to the head of Grand Island, two miles below Courtland.

Here Steamboat Slough delivers a portion of the water by a route eight miles shorter than Old River to the Rio Vista channel; at Walnut Grove, Georgiana Slough forms the first connection with the San Joaquin channel. It is twelve miles long, devious and too narrow to be of much service, however.

Private parties have further complicated the situation by damming off for private purposes Tyler and Jackson sloughs.

Previous to the advent of man, the waters of Sacramento River were pure and clear. In years of excessive rainfall, nature had provided by-passes and natural overflows, by means of which the water in the channel never acquired its present height, but was allowed to pass out quickly to tide water of San Joaquin and Rio Vista channels. On the reaches above Knight's Landing this is notably true of Sycamore, Wilkins, and Butte sloughs; while below Knight's Landing, the waters would escape in great quantity by "nature's weirs," the natural banks, unprotected by levees, partly through the Yolo Basin to Rio Vista channel, partly easterly of Sacramento City to San Joaquin River.

It has been the misfortune of the State that all attempts to control the flood waters of Sacramento River have been undertaken piecemeal by private interests, each man spending his own funds for the protection

of his own selfish ends, regardless of the effect that improvement or change in local conditions might or must necessarily have on other sections above or below him. And worse than that, the system has for many years prevailed in the councils of many reclamation districts, organized under the general laws of this State and for public purposes, that the only way to keep their heads above water is so to protect their own land as to drown out their neighbors, opposite, above or below.

One broad, comprehensive scheme, attempting the improvement of the channel, for navigation and drainage, as a whole on scientific lines of modern hydraulic engineering, was never undertaken or even seriously considered.

Thus the construction of a very solid dike on the left bank of American River, connecting the highlands to the east with the left bank of Sacramento River, reclaimed the capital of the State, which formerly, notably in 1862, had been subject to frequent inundations; but it also succeeded in playing sad havoc with an important natural outlet of the flood waters of the State, causing changed conditions, higher flood marks, breaks and devastation in places formerly supposed to be perfectly safe, and disturbing the provisions of nature for the drainage of Sacramento Valley.

Thus the construction of the line of levees fifty miles long on the left bank of Sacramento River, from Sacramento City to the foot of Brannan Island, by the adjacent land-owners, had the locally beneficial effect of reclaiming the lands protected by the said levees, of creating conditions of great prosperity and wealth; but from a hydraulic standpoint, it had the disastrous effect of preventing the working of the natural outlet over that bank, which formerly acted as one immense "natural weir" over its entire length; it also raised the river floods to heights formerly unknown, causing breaks on the opposite or Yolo side, first at Washington, then at Payne Break; and when those were stopped, lower down at Clarksburg; which all, not only yearly devastate what undoubtedly is destined to become one of the most prosperous sections of the State, but seriously disturb the proper discharge of the waters through Sacramento River channel.

Thus the partially successful operations of owners of lands adjacent to Sacramento River, between Colusa and Knight's Landing, aimed at reclaiming their lands without giving much thought to the manner and extent to which their work might affect the channel above and below them,—they justly concluded that the damming-off of Sycamore, Butte, Wilkins, and several other sloughs and outlets would materially reduce the mileage of levees required for the reclamation of their lands; but they did not consider that thus closing up several of the most important outlets of river water left the only available channel at flood times to discharge at least thirty-three per cent more water than it was

able to convey, and the result was a rise in the flood plane to elevations never before dreamed of; hundreds of thousands of dollars were in years gone by spent by various reclamation districts in the vain and foolish attempt to have the size and height of their levees keep pace with the constantly rising flood marks. At Grimes's Landing, for instance, a general rainfall of ten inches usually caused the river to rise over twenty feet in twenty-four hours.

Of late, relief has been sought in the construction of weirs, which were intended to prevent lateral discharge until the river rose to a certain height. The weirs have undoubtedly granted local relief, but the result on the problem of water distribution and discharge has been to add greatly to the complications of difficulties to be solved.

Cuts or crevasses near the Tisdale and Elkhorn weirs have, during recent floods, discharged too much water. This, in the case of the break adjacent to Tisdale weir, had the fatal effect that in a short space of time so much water rushed by the short cut through the Sutter Basin that it caused Feather River flood plane to raise Sacramento River to such an extent that it was actually higher at its confluence with Feather River than at Knight's Landing, situated fourteen miles up Sacramento River, as was evidenced by the fact that logs actually floated up the Sacramento (though down current) from mouth of Feather River to the breaks at Knight's Landing.

The breaks adjacent to the weir at Elkhorn and adjoining breaks worked in much the same way. They should be permanently closed and flood relief confined to the weirs. These breaks let a great deal too much water into Yolo Basin, with the result that although in February, 1902, we had at Sacramento City only 6.52 inches of rain, the water seemed to accumulate at the foot of Grand Island all at once in enormous volume; Rio Vista is situate only fourteen and a half miles from tide water at Collinsville; still the gauge at Rio Vista registered on March 2, 1902, fourteen feet above low tide, showing a gradient of almost one foot per mile for Rio Vista channel; the entire basin seemed one roaring sea, spreading waste and devastation, threatening dikes which had been supposed to be safe beyond peradventure, and overtopping others. Sacramento River channel from Walnut Grove to foot of Grand Island, Sacramento County, was a sluggish stream almost standing still, as the water at Rio Vista was so high as to allow of no outfall.

Thus in almost all of its sections the economics of water distribution were upset and disturbed, and in many instances entirely destroyed; some sections, running up-stream; others, which ought to be traversed by swiftly-running currents with velocity of from five to six miles per hour, almost standing still.

No wonder that many interested in the welfare of the valley inquired,

if such conditions were created by a seasonal rainfall at Sacramento City of only 15.16 inches in 1901-02, what might be expected if we should be visited by a seasonal rainfall of 35.6 inches, as we had in 1862; and pronounced the task of grappling with the problem before us a hopeless one.

Your Committee, while fully realizing the seriousness and gravity of the problem before them in all its phases, are, however, glad to be able to announce their conclusion that whatever has been spoiled and disturbed by the folly and thoughtlessness of man, can also by man be rectified. What is needed in the first place is a hopeful spirit, a firm conviction of ultimate success, a ready will to join hands and set to work.

Having thus briefly stated the almost hopelessly bad and neglected present condition of Sacramento River channel as a waterway, for navigation and discharge of flood waters, your Committee will now proceed to state their conclusions and recommendations for the improvement thereof.

As a result of examinations and careful study, we are enabled to report as our unanimous opinion that it is possible and feasible, at a comparatively moderate cost, so to improve and widen the channel of Sacramento River that, with a possible exception of extraordinary floods (when weirs will have to furnish the needed relief), the entire flood waters of the combined upper Sacramento, Feather, and American rivers and of Cache Slough can be confined in one channel.

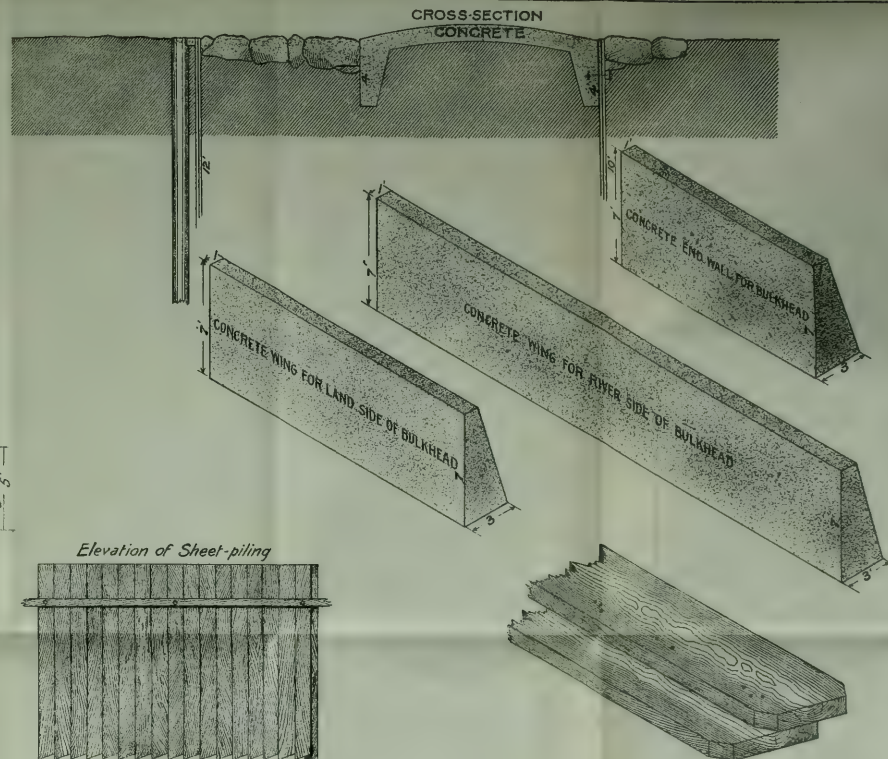
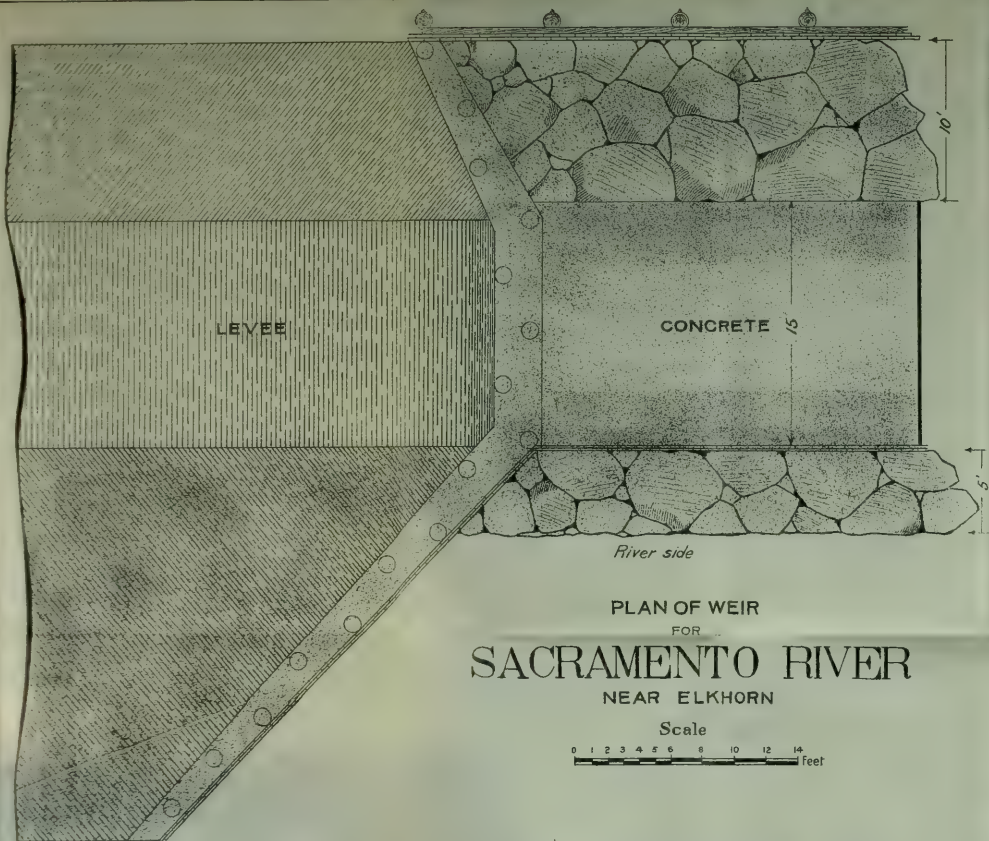
This result can not be reached in a year, but should be the one goal toward which tend all measures proposed for improvement. It is believed that when the river shall have scoured down its own improved channel, and levees on both sides have been gradually strengthened and raised, it will be found both possible and expedient, tentatively to raise the crests of the weirs now constructed. When once this is accomplished this would cause a complete metamorphosis of conditions in Sacramento Valley, to wit:

First—Strong tidal action up to and beyond Sacramento City.

Second—A water channel making possible deep-water navigation to Sacramento City, and bringing Colusa, Marysville, and points beyond, within reach of ships drawing ten or fifteen feet.

Third—A thorough reclamation of the five basins (so called), creating conditions of wealth and prosperity for the waste lands situated westerly and northerly of Sacramento City as far as Jacinto and Chico, similar to those now existing on the fertile bottom lands on the lower reaches of the river.

Having reached this conclusion, your Committee have earnestly sought a remedy for the deplorable conditions existing, and there is no



Sheet Pile. Enlarged scale
Dimensions, 2' x 12' x 12'

doubt in their minds that the first and main cause of the present trouble is the fact that the channel below Rio Vista is too narrow and tortuous to admit a free passage to tide water of the constantly increasing masses of water which accumulate at that point at flood stages.

As we deem it wise to limit our efforts at present to the correction of the Rio Vista channel, we wish to call special attention to the conditions now existing there.

On the right bank of Sacramento River, between Rio Vista and Collinsville, the Montezuma Hills prevent a lateral discharge of flood waters to the west. In former years they overtopped the left banks and found an easy escape easterly to San Joaquin tide water. The building of levees on Brannan and Sherman islands opposite and above the Montezuma Hills in late years, has prevented such lateral discharge and has forced the enormous mass of waters accumulating at Rio Vista to find its way to tide water through a channel which is fourteen and a half miles long, in one place but seven hundred feet wide, and which by alignment and cross-sectional area is entirely insufficient and unadapted to do the work it is called upon to perform. The breaks in the Sherman Island levee have by diminution of flow caused the formation of bars, and have further lessened its usefulness by decreasing the cross-section area of the channel.

On March 2, 1902, the river at low tide at Antioch and Collinsville marked two tenths of a foot above zero, or mean low tide at Antioch, which is the datum referred to in all surveys in this report. At the same time at Rio Vista, fourteen and a half miles distant by river channel, the river marked fourteen feet above zero; showing a fall of almost a foot per mile, which in a tidal stream is absurd.

This condition of affairs demonstrates conclusively the existence of a gorge below Rio Vista; it is caused by a channel too narrow and of bad alignment and by the existence of bars at the mouth of the river below Collinsville.

At Toland's Landing the river butts in a direct line against the Montezuma Hills, while a sand-rock formation of the banks at that point has prevented the river from widening the channel. The fact that a very large amount of water escapes through Three-miles and Seven-miles sloughs, explains the fact that the channel immediately below the confluence (at Horseshoe Bend) is shoaling somewhat.

We are positive that the fact of the tidal channel below Rio Vista being choked is at the root of all of our difficulties.

It prevents quick "inhaling," by Suisun Bay, at each low tide, of the waters accumulating above Rio Vista; it is the cause of the unheard-of high-water marks, causing destruction to levees of Sherman, Brannan, Egbert, Ryer, and Andrus districts, and seriously threatening others; it explains the excessive flood heights of Cache Slough, preventing it

from draining Yolo Basin; and it also explains the "waterdam" (so called) at the confluence of Old River and Steamboat Slough, and which in its turn causes those waterways to stand still and even run up stream at flood times.

By thus diminishing the current velocity in those streams, it is also the cause of the formation of sand bars therein.

If, now, we assume for a moment that the channel below Rio Vista were so corrected and improved that the gauge at Rio Vista, even in an 1862 flood, should mark, at low tide, say five feet above zero, and at high tide say nine feet above zero, the waters would be prevented, even in the highest floods, from ever reaching at Rio Vista a height above nine feet, or five feet below high-water mark of March 2, 1902.

At each low tide it would drop, say four feet, causing such a current velocity in Steamboat Slough and Old River as to aid immensely in scouring out of those channels the sediment and "slickens" deposited there by the operation of hydraulic mining; it alone would have a great influence on high-water marks at points above, even at Sacramento City wharf probably as much as two feet; it would solve the Cache Slough problem, as that stream and adjacent territory would be easily drained; it would increase tidal action to such an extent in the summer months that a strong tidal oscillation would be felt at Sacramento City. This increase of tidal in- and out-flow would further materially assist in creating and maintaining a deep-water channel. Incidentally, it would make possible the reclamation of valuable tracts of land now despaired of and practically abandoned.

Your Committee believe thus to have demonstrated that the step to which our first and exclusive attention should be directed at the present time, the one measure that should receive precedence over all others for relief, is the finding of means, efficient and practicable, for affording to the enormous volume of water now presenting itself at Rio Vista for passage, an easy, short, and effective way of escape to tide water.

MONTEZUMA CANAL.

Among residents on the banks of Sacramento River, a popular belief exists that the cheapest and most practicable solution of the problem would be the construction of a canal called "The Montezuma Canal," an excavation through a depression in the hilly region between Rio Vista and Suisun, which, connecting Maine Prairie and Denverton, would give an easy drainage to Cache Slough and Yolo Basin and thus relieve Rio Vista channel.

Your Committee visited the locality, examined the conditions, and found the swale reached by excessive waters of Cache Slough. The reason for the popular belief is quite apparent. At such excessive

stages, the waters of Cache Slough reach far inland, and the distance between such overflow and the water at Denverton is not excessive, so that it would seem easy to connect the two sheets by a ditch.

It is forgotten that to be effective, the bottom of the ditch would have to be at least ten feet below low tide, and twelve hundred feet wide. The greater portion of the canal would run over lands at an elevation of from twenty to forty feet above low tide where the soil is hard and partly rocky. A rough estimate of the cost of a similar canal would bring the expense in the neighborhood of \$10,000,000. Assuming even that it were possible to procure such a sum for such a purpose, the result would be a division of the flood waters into two deep tide channels, which is not desirable.

CUT THROUGH SHERMAN ISLAND.

Your Committee have carefully examined into the next proposition, the straightening out and widening of Rio Vista channel by cutting off Horseshoe Bend, and were at first much impressed by it. We consider ourselves, however, fortunate to be able to state that a better, shorter, easier, and absolutely efficient way to procure an outlet to tide water has been found.

The channel from Rio Vista to Collinsville is fourteen miles in length. To widen and improve the same, and to correct its mouth, would cost at least \$500,000.

The lower reaches of San Joaquin River are one mile wide, and for all practical purposes can be considered as tide water.

In making a cut through Sherman Island 15,000 feet long, and say 1,300 feet in width, gradually widening to 1,400 feet, the distance from Rio Vista to tide water would be reduced by eight miles, and would by actual measurement be six and a half miles.

As will be seen by the accompanying sketch, in the report of the Commissioner of Public Works, following page 8, the relief afforded would be by a direct line. San Joaquin River is so wide at the point of proposed junction that it is believed the confluence would not affect its plane to the extent of one tenth of a foot.

Your Committee feel assured that by the construction of this new mouth of Sacramento River, high-water mark at Rio Vista, even in an 1862 flood, would never rise to within five feet of that reached on March 2, 1902. This would allow a fall of six inches to the mile, which is ample, and will probably be found to be well in excess of actual conditions, when once the new channel will be in proper working order.

While, moreover, at present, the amount of water daily supplied and accumulating at that point far exceeds the volume which the channel below Rio Vista can deliver, the cut proposed would prevent such gorging as at each low tide the enormous area of Suisun Bay would be able

to receive such amounts as had collected during the previous high tide. The beneficent results of thus promptly carrying off the flood waters to tide water at each succeeding low tide can hardly be over-estimated.

It would of itself increase tidal action to an enormous extent, thus insuring greater scouring action by greater daily discharge of volume; it would also greatly increase the velocity; and these combined agencies must necessarily result in materially deepening the channel.

The cut proposed would be made in soft peaty land situate at an average elevation of three feet below low tide. In order to obtain the best possible results, the entire channel below Grand Island ought to be made of a uniform cross area; funnel shaped; and we recommend the construction of a channel 1,200 feet wide at the confluence of Old River and Steamboat Slough, gradually widening out to 1,300 feet at the beginning of the cut proposed and 1,400 feet at the end thereof.

This work will entail the construction of small jetties at the foot of Brannan Island and a widening of the channel on the right bank. According to the estimate made at our request by the Department of Public Works, this entire channel correction could be made for about \$400,000. In view of the fact that the proposed Montezuma canal, which would have to be excavated to an average depth of thirty feet with a length of eight and a half miles, and at a cost estimated at \$10,000,000, would but partially accomplish what has been shown can better be done for \$400,000 by making a cut two and a half miles long to a depth of, say ten feet, your Committee is fain to express the hope that the "Montezuma canal" proposition, that fruitful discussion among sapient river residents, will no longer be considered in a serious discussion for devising plans to relieve Sacramento Valley from river floods. It has been unfavorably reported upon by every engineer who has ever estimated its cost, during the last twenty-five years, and it ought long ago to have been dead and buried, and should hereafter remain so.

As a corollary to the proposed cut through Sherman Island, the improvement of the mouth of San Joaquin River below Antioch would have to be undertaken. It is a matter of sincere congratulation that the U. S. Engineering Corps is not only in full accord with the views of your Committee, as herein expressed, in reference to the cut through Sherman Island, but, if Congress authorizes, is willing to undertake the improvement at the mouth of San Joaquin River at National expense.

Your Committee are of the opinion that the cut proposed will be the first important step toward the solution of the great problem before us. The problem at the present time confronting us is the construction of a channel below foot of Grand Island to tide water, of proper alignment, width, and depth to accommodate the combined waters of Cache Slough,

Steamboat Slough, American, Feather, and Sacramento rivers. This we are convinced the proposed cut through Sherman Island and proposed channel correction will furnish.

That work accomplished, the next step will be to procure a channel from foot of Grand Island northward to mouth of American River, for the combined floods of the three rivers last named.

Finally, a new channel for Sacramento River proper above mouth of Feather River will have to be made, of such character as will prevent excessive flood heights at Colusa and points below, and as will enable adjacent land-owners to build levees which can cope with the situation, even in an 1862 flood.

With this cut through Sherman Island finished and permanent water gauges established along the river at not too large intervals, the problem of taking care of the flood waters of Sacramento Valley can gradually and surely be accomplished. The gauge readings at flood periods would give us invaluable information of the existence of insufficient channel areas, and in case the fall in the flood plane between any two gauges should, for a given distance, greatly exceed the average, it would indicate the fact that the river was choked at that point and a remedy could be found. This could be afforded either by cutting off a point by a dredger, by scouring out the channel bottom by properly directing the current by jetties, or by widening the channel in a certain section.

By working up stream in this way, we will gradually reach the upper Sacramento, and a happy and perfect solution will have been found for the reclamation of the lands bordering upon that stream.

Neither will this work require a very long space of time. Assuming the necessary appropriations were promptly forthcoming, two years ought to finish the cut through Sherman Island; two years more ought to bring us to mouth of American River, and two years after that at Colusa and points above.

But at present all the energies of every man having at heart the welfare of the two valleys should be centered on that one initial step. Means to obtain the necessary funds will be discussed later.

WEIRS.

Two concrete weirs have been constructed by the Department of Public Works—at Elkhorn and near the former Tisdale break. They are both permanent structures, and have been made with a view to control flood heights at points below.

The Elkhorn weir begins to work when the river at Sacramento City marks 22.5 feet at the gauge at the foot of K Street. It was constructed

with a view to prevent that gauge from registering above 27.5 feet. The overflow runs through the Yolo Basin and empties into the channel above Rio Vista.

The Tisdale weir has a crest $3\frac{1}{4}$ feet below flood height, and is constructed to relieve the levees of Sacramento River on the east and west below that point, and it has been successful in bringing about that result. The overflow runs through Sutter Basin and reaches the channel of Feather River near its confluence with Sacramento River. In order to perform the work for which the weirs are intended, the levees above and below should be kept up. At present this is not the case, as breaks in the levees reduce their efficiency, if they do not entirely destroy it. Your Committee are of the opinion that the weirs at present constructed should be maintained, but that their number should not be increased. The ultimate aim in river improvement should be so to improve, widen, and deepen the channel that weirs are no longer necessary.

Modern hydraulic engineering looks upon water not as the enemy, but as the best friend of the hydraulic engineer. In a sense it may be said that there can not be too much of it, provided of course a channel exists or has been constructed of sufficient area and proper alignment to enable it to take care of the flow. The more water we can crowd in that channel, the more tide water we can induce to enter it at every high tide, the better; for it should be our aim to create strong tidal action at least up to the mouth of Feather River; when that has been accomplished all the other improvements will be found to be of easy solution. We should be grateful that upper Sacramento River furnishes throughout the entire year a flow sufficient to create and maintain a perfect channel in places twenty-five feet deep. If that were to fail us our difficulties would be greatly increased.

In regard to the work on upper Sacramento and Feather rivers we recommend that all lateral escapes of floodwater (except over the weirs now constructed) be prevented at once, in order to keep as much water in the channel as possible. The estimated cost of this work is \$40,000.

We further believe that the opening up of channels below Sacramento City should precede the undertaking of works entailing a comprehensive plan for the solution of the complicated problems of drainage and protection of lands above Sacramento.

This River Improvement and Drainage Association of California should pledge itself to advocate the undertaking of that work just as fast as the river below has been improved sufficiently to make the execution of such a plan feasible.

Any money spent in that direction now, except as indicated above, would be worse than wasted, as it would not give permanent relief and only further complicate the situation.

CUT-OFFS.

One cut-off was constructed in Sacramento River above the mouth of Feather River, and is undoubtedly an improvement. Navigation and drainage were much improved thereby. We understand that the current has scoured it down to a depth corresponding with adjacent sections.

JETTIES.

The U. S. Engineering Corps has, in a number of places, especially in the shallow reaches below Sacramento City and immediately above and below Isleton, constructed jetties in a position perpendicular to the current line, having the purpose and effect of narrowing the channel at those points, where, by reason of a too wide channel, the current velocity has been reduced to such an extent as to cause the deposit of sand and sediment, resulting in bars, contracted channel area, and serious impediment to river navigation. The State Department of Public Works constructed in 1898 five jetties at a point known as the Newtown Shoals, one half mile above Rio Vista, in order to remove such shoals, at an expense of about \$36,000. The result of the construction of those jetties has been uniformly beneficial and resultant in increased channel area and channel depth. The best proof of this assertion is the result of the work achieved at the Newtown Shoals.

See "Cross-section of Sacramento River at Newtown Jetties," following page 16 of report of Commissioner of Public Works.

This sketch, furnished to us by the courtesy of the Department of Public Works, shows that whereas in 1898 we had a channel 2,800 feet wide, with a depth varying from 7 feet to 0, causing serious impediments to navigation and drainage, we have now a channel with a width reduced to 1,300 feet, but with an average depth of 18.7 feet, and with a present cross-sectional area of 24,770 square feet, against an area of 12,140 square feet in 1898; a gain of 104 per cent in cross-sectional area.

As a further proof that the jetties constructed by the U. S. Engineering Corps and by the State Department of Public Works have not failed to perform the work for which they were constructed, we point with pride to the fact that whereas formerly, previous to 1898, tidal action ceased at Walnut Grove, we now find a strong current running up stream past Vorden, Courtland, and Richland—a gain of twelve miles.

At the time of the writing of this report the beneficial effect of the jetties by increased scouring action of the river is shown by the gauge reading at foot of K Street, Sacramento. It shows the river to be at 6.9 feet, or lower than at any time for the last fifteen years, and we note that, notwithstanding this lower elevation, channel-area has increased

and the bed of the river has been lowered very materially. While the mail-boats in former years could not reach Sacramento City wharf during two months of the year, unless they had been lightened by partly discharging their cargo on barges, the captains now report an excellent channel; and this notwithstanding the fact that after the steamboat "Modoc" burned down, the "Onward," which draws one foot more water, was put in her place.

All this should be an encouragement for us to continue on the lines laid down, and it is believed that the cut proposed through Sherman Island alone, would cause tidal action to be strongly felt in Sacramento City. It need not be pointed out that such increased tidal action means increased volumes of water daily traversing the channel, a circumstance which can only be most beneficial to the scouring action of the river.

To the uninitiated, only looking at the surface of things, these jetties may seem to obstruct the free flow of flood waters; but this is not the case. They are in accordance with good hydraulic practice, and should not be disturbed. As this Committee has been asked to examine into and report upon those jetties, we have thought it proper to express our opinion on that point. If we have a criticism to make in that regard, it would be that they are not constructed in a manner sufficiently permanent and substantial. The heads have frequently been allowed to be washed away by the increased current; they should be protected by stone and rock in every instance.

We further recommend that the crests of the jetties be not raised higher than one or two tenths of a foot below low water (low tide), in order not to interfere unnecessarily with high water and flood flow; the scouring action of the stream will remain just as effective.

It is a great pleasure to us to refer in this connection and at this place to the conscientious, efficient, and honest work which has been done by the staff of the Department of Public Works. Not only has it kept away from politics and its baneful influences, but it has earnestly and honestly endeavored and succeeded in doing the utmost with but scanty means.

While a goodly number of previous Commissions, Departments, and Engineers have contented themselves with drawing salaries for themselves and deputies, and writing up big reports at each session of the successive legislatures, containing a mass of partly undigested data, and for a good deal consisting of reprinted matter contained in previous reports, all of which cost a good deal for printing alone, Messrs. Nurse and Randle have been the first actually to go in the field and accomplish results.

In comparison with the manner in which the State money has been spent in previous years, this is refreshing and gratifying, and should receive proper acknowledgment by all parties interested.

WATER GAUGES.

Your Committee have been hampered considerably by a lack of properly compiled records of high- and low-water marks along Sacramento River. Gauges have indeed been placed here and there by different engineers at different times against a pile or on a mud flat, but they have all been carried away by floods, mischievous boys, or destroyed by steamboats knocking the piles down. No systematic system of taking daily readings and reporting them to one central authority has been inaugurated.

It is recommended that an effort be made at once for organizing a system for obtaining daily readings at all mail landings and other important points. That for that purpose, substantial concrete piers be constructed, with floats designating the height of the water at that point. The captains of the mail boats or the wharfingers should be requested to make daily readings and report same monthly to the Department of Public Works at Sacramento, where a clerk should be employed properly to compile, record, and publish the same. No comprehensive plan of river improvement is possible without accurate data of river conditions. No data can give more intelligent information regarding river conditions, obstructions, gorges, reduction in current velocity, tidal action, etc., than properly compiled readings of river heights. A sum of \$5,000 should be set apart at once for the construction of such concrete water gauges.

SAN JOAQUIN RIVER.

We recommend that the river improvement work already begun on the lower San Joaquin River be continued along the lines heretofore designed, to the end that the river bends be eliminated and the water channel be deepened and rectified; and such work be undertaken and commenced on the upper San Joaquin as will lead to a longer and more certain season for boats engaged in carrying the products from the valley counties to the seaboard, and that a sum of money adequate to the carrying out of such improvements be set aside by the Board of Public Works for such purposes.

Also that a sum of \$60,000 be set aside for the purpose of acquiring the needed right of way for the canal to be constructed by the Federal government, intended to divert Calaveras River into San Joaquin River at a point below Stockton.

MOKELUMNE RIVER.

Your Committee, accompanied by the Department of Public Works, visited also the Mokelumne River above New Hope Landing. Its free flow was found to be seriously obstructed by numerous snags, causing obstacles to navigation and drainage.

The land-owners interested have gone to considerable expense in attempting to enlarge the area by making cut-offs and clearing the channel. Your Committee recommend that, in case the land-owners of adjacent lands are willing to cut down the trees now growing on the banks of said stream, between the levees and the river, a sum of \$40,000 be appropriated and set apart, to be spent by the State Department of Public Works, for removing snags and improving the river channel in Mokelumne River between New Hope Landing and Woodbridge.

FINANCES.

In discussing the proper methods to raise the funds required for the carrying out of the work herein recommended, your Committee have reached the conclusion that it would be desirable that a united effort be made, by all parties interested, at the next session of the Legislature of this State, to obtain from it a grant of \$750,000 to the State Department of Public Works. Serious doubts exist whether any attempt to raise the amount by special taxation, or by any other means whereby the funds are to be contributed by adjacent land-owners or cities or counties interested, will be successful, by reason of the difficulty, if not the impossibility, of properly and fairly apportioning them, and by the endless litigation it would be sure to entail. Moreover, the opening up of the great highways of commerce, and the draining of the two great valleys of the State, insuring their prosperity and largely increasing their ability to share in the just burdens of taxation, are essentially State interests.

While it may seem that the funds to carry out the proposed work should largely, if not entirely, be borne by the National Government, to whose exclusive care all navigable rivers are entrusted, your Committee hesitate to advise waiting until funds from that source are available.

It is believed that if the two great valleys and all lands interested will join hands in one great effort, such representations can be made to our State Legislature that no serious difficulties will be experienced in inducing the proper grant to be made.

What is needed is an united effort—a long pull, a strong pull, and a pull all together—and we will succeed.

All of which is respectfully submitted.

FRANK MILLER, President,
P. J. VAN LÖBEN SELS,
GEO. F. McNOBLE,
B. G. PEART,
L. TARKE,
J. H. GLIDE, Jr.,
F. H. HARVEY,

Executive Committee.

SACRAMENTO, November 22, 1902.

Approved and adopted at meeting of Committee of Twenty-four, held at Sacramento City, December 7, 1902.

J. W. BROWNING,
Grand Island, Colusa County,

JOHN COUGHLAN,
Sycamore, Colusa County,

JOHN HART,
Cranmore, Sutter County,

E. POFFENBERGER,
Cranmore, Sutter County,

L. TARKE,
West Butte, Sutter County,

A. C. BINGHAM,
Marysville, Yuba County,

G. W. CHAPMAN,
Winters, Yolo County,

B. G. PEART,
Grafton, Yolo County,

P. J. VAN LÖBEN SELS,
1111 Washington St., Oakland, Alameda County,

F. F. RYER,
Pacific Union Club, San Francisco,

B. ETTLINGER,
311 California Street, San Francisco,

FRED W. ZEILE,
Mercantile Trust Co., San Francisco,

A. T. J. REYNOLDS,
Walnut Grove, Sacramento County,

PETER COOK,
Rio Vista, Solano County,

A. L. SHINN,
Sacramento, Sacramento County,

J. H. GLIDE, JR.,
Box 456, Sacramento, Sacramento County,

J. P. SARGENT,
Lodi, San Joaquin County,

W. B. MATTHEWS,
French Camp, San Joaquin County,

JOHN N. WOODS,
Stockton, San Joaquin County,

B. F. ROLERSON,
Stockton, San Joaquin County,

E. L. WILHOIT,
Stockton, San Joaquin County,

W. C. WHITE,
Stockton, San Joaquin County,

GEO. F. McNOBLE,
Stockton, San Joaquin County,

FRED H. HARVEY,
Galt, Sacramento County,

General Committee.



REPORT

OF THE

DEBRIS COMMISSIONER

FROM

MAY 28, 1901, TO DECEMBER 1, 1902.



SACRAMENTO:

W. W. SHANNON, : : : : : SUPERINTENDENT STATE PRINTING.

1903.

REPORT OF THE DEBRIS COMMISSIONER.

NEVADA CITY, December 1, 1902.

To His Excellency, HENRY T. GAGE, Governor of California:

SIR: On May 28, 1901, I received, at your hands, the appointment of Débris Commissioner, to succeed the Hon. J. F. Kidder, deceased, and herewith submit a report of the operations of the office since my appointment.

It is the duty of the Débris Commissioner to confer with the California Débris Commission relative to plans for débris-impounding works, to inspect the same, and to act as disbursing officer on the part of the State, in accordance with statutes approved March 23, 1893, and March 17, 1897.

Upon receiving the appointment, I found that plans had been adopted by the U. S. War Department and the State Board of Examiners of California, for a series of barriers and other works upon the Yuba River, for the restriction of the débris therein. The California Débris Commission, which has charge of the work on behalf of the United States, was engaged in securing the land required for the project.

After first meeting with the Commission, I attended the inspection of the Yuba River by the Committee on Rivers and Harbors of Congress, and have assisted, in every way possible, in securing the land required.

Congress, in one of the appropriation acts, limited the amount available for this purpose to \$20,000—one half of which is to be paid to the State. It was subsequently found that this amount was not sufficient to meet the demands of the owners. The Chamber of Commerce of Marysville, in conjunction with the Commission, then undertook to acquire the land for, the amount named. Too much credit can not be given them for the work done under most trying circumstances. The property desired is for the most part covered with débris. The titles, as may be expected, were in a deplorable condition—the character of the ground naturally leading to lax methods in maintaining them; so much so, that at times it seemed as though they never would be in shape to meet the strict but proper requirements of the Attorneys-General of the State and Federal governments.

During a visit to Marysville, it was finally decided to appeal to the people for funds, by which the title could be put in shape to meet the

legal requirements. By this means, \$4,613.75 was raised from the citizens of San Francisco, Yuba, and Nevada counties.

It is especially gratifying to me to note that the money came, principally, from parties who have, during the past twenty-five years, been antagonistic to each other, but who had united upon this, a common cause.

On May 1, 1902, payments were commenced upon the land, the total purchase being approximately 4,542 acres. There yet remains one parcel of 3,123.5 acres, the title to which is at present defective.

Upon July 1st, the California Débris Commission forwarded to me plans and specifications for so much of Barrier No. 1 as was desired to be constructed this winter. The plans and specifications were duly approved by the State Board of Examiners, upon my recommendation.

On October 16, 1902, the California Débris Commission, after advertising for thirty days, opened bids for the work proposed. There were eight bidders, the lowest being the Atlantic, Gulf and Pacific Company, whose bid was \$27,940.50.

The work proposed consists of the following, as described in the specifications:

(A) A row of piles about 1,050 feet long, crest measurement, extending from the south bank to a point about 350 feet from the north bank.

(B) A row about 1,320 feet long, crest measurement, starting at a point in the river bed about 40 feet east of the north end from "A" and extending down the stream about 100 feet, thence along the curved and broken line indicated in the drawings, to a point on the north bank.

(C) A row about 200 feet long, extending along the north bank across the water pool, as shown on the drawings.

(D) A row about 30 feet long, extending southward into the river from a point about 10 feet north of the north bank.

Rows "C" and "D," either or both, may be omitted, at the discretion of the engineer officer in charge.

Constructing and placing a brush mattress 20 feet, more or less, in width, by 1 foot in thickness, by about 1,050 feet in length, along the lower side of row "A" of piling.

Placing loose brush in a layer about 10 feet wide, by 1 foot in thickness, by about 1,400 feet in length, extending along the upper side of row "A" and part of row "B" of sheet piling.

Loading mattress and brush with a layer, about 1 foot thick, of stone.

Constructing an earth embankment about 300 feet long, 10 feet high, and 40 feet wide on top, extending southward from the north shore of the river, the south end to be protected by brush and stone.

Constructing a spur, about 400 feet long, of brush and stone, similar to the end protection of the earth embankment, extending from the south end of the embankment about 30 feet east and thence about 400 feet southward parallel to row "A" of sheet piling.

The work proposed is briefly described as follows: The piles are built of three pieces of plank, 3 by 10 inches, spiked together, and will be approximately 16 feet long.

Upon the down-stream side will be a brush mattress built of facines 12 inches in diameter, 20 feet long, weighted down with stone, fifty per cent of which to weigh over 500 pounds. Upon the upper side will be a loose brush carpet 10 feet wide and 12 inches thick, also weighted down with stone.

The earth embankment projecting into the river from the north bank will be 300 feet long, 40 feet wide on top, with a slope of one on four on the up-stream side and one on one and one half on the down-stream side. It will be approximately 10 feet high, varying with the contour of the ground.

The material for this embankment will be taken from the by-pass site of Barrier No. 1. The formation is gravel and slate of various degrees of decomposition.

Brush spur, as described in specifications: "The total length of the brush spur is 400 feet. The spur will consist of a brush apron, of a core of brush and gravel, and of a stone protection on top of spur and apron and also on the down-stream slope of the spur."

Time has been made an important feature of the contract. The work to commence fifteen days after the contract is let, and to be completed in ninety days, if the flood stage of the river will permit.

It is to be hoped that the work now commenced will mark a new era, not only in the débris problem, but in river improvement as well; and that the present project will be so extended, under experience gained through its construction, until it satisfies every phase of the problem.

This débris problem is one of serious moment to the State. It has been the cause of a long protracted war between what were once prosperous communities.

The débris flow has caused the destruction of thousands of acres of fertile farms and the serious impairment of the navigable rivers. Its attempted solution by injunctions of the courts has resulted in the destruction of a profitable industry of the State—that of hydraulic mining.

Although many reports have been made upon the subject, there are certain features that have not been given due weight, because the various investigators were not in touch with the actual conditions leading to the débris flow.

It is the lack of this knowledge that has in a great measure retarded its solution in the past. Careful consideration by those most interested will show that there is a common ground to stand upon, and it is hoped it will lead to a "community of interests" that is so necessary to hasten the much-needed work.

The present occupation of California dates from the influx of gold-seekers in 1849. While some sought the mountains, then uninhabited, and began the uprooting and washing away of the hills, others followed the ordinary civil pursuits, selling their products at exorbitant figures.

Statistics show that in 1852 the gold product of the State was \$81,294,700, while in 1900 it was only \$15,863,355, principally from quartz mines. The entire product of the early miners was from the placer mines, the most extensive deposits being on the Yuba River. It is a matter of history that there were 30,000 miners at work on the Yuba River watershed during the "early days."

The farmers who settled upon the fertile valleys of the Yuba were first to suffer from this golden market. It is true their lands became extremely valuable, but it would be interesting to determine how nearly they were paid for on the "installment plan."

The total gold product of California to 1900 was \$1,324,471,683.

Where has the débris caused by the production of this incomprehensible amount gone to? It has been heartlessly answered, "Down in the Valley."

It is known that there has been a continued shoaling of the San Francisco and San Pablo bays, and that the Sacramento and Feather rivers are reported to have filled an average of nine feet, to the serious detriment of navigation; but the greatest amount of débris is along the Yuba River, upon the area partially covered by the present project.

In 1878 the State of California began exhaustive surveys of the rivers and débris-covered lands, in order to solve this vexed problem, which ended in the disastrous failure of the brush dams upon the Yuba and Bear rivers.

The surveys of the California Débris Commission were connected with the bench marks of the State survey, the respective dates being 1899 and 1879, so that a comparison of elevations gives the depth of the fill, independent of the recollection of the oldest inhabitant.

Should an investigator, in quest of finding where this débris from the mines has been deposited, follow the Yuba River down its cañons, he would find them nearly swept clean of débris until he reaches the Smartsville dumps, where the elevation in 1899 is the same as in 1879. There he will find coarse cobble, gravel, and sand; continuing onward to the proposed barrier sites, where the débris is similar to that of an average gravel bank, while the map shows a fill of 12 feet; continuing onward to Daguerre Point, where he will find a vast bed of sand and gravel in the channels cut through the sand, the elevation, however, being about the same as in 1879. To the westward to Marysville the Yuba spreads out to a width of over two and a half miles between levees, where he will behold a great deposit of sand overgrown with brush-wood.

A comparison of the map shows an average deposit of 4 feet, but at the railroad bridge at Marysville, except in the main watercourse, the elevation is substantially the same as in 1879—a fact corroborated by other evidence.

Where did all the sand come from? It can not be attributed wholly to the gravel deposits of the mountains when the ratio of sand found in these banks is compared with the deposits at the barrier sites. To this I will refer later.

In the celebrated suit against the North Bloomfield Gravel Mine, the valley engineers estimated, from surveys made in 1879, that 176,061,000 cubic yards of gravel were excavated upon the Yuba River watershed. The Board of Engineer Officers of the Corps of Engineers, U. S. A., commonly known as the "Biggs Commission," in 1891, placed it at 452,690,000 cubic yards, which is probably as near the truth as can be determined.

The State Engineer, in his report of 1880, placed the amount of débris deposited in the Yuba River from the county bridge at Marysville to the Yuba mill (a distance of 15 miles) at 23,284,000 cubic yards, and 18,592,200 cubic yards to the Smartsville dumps, $4\frac{1}{2}$ miles farther, or a total of 41,876,200 cubic yards.

The California Débris Commission in 1894, from the result of borings made by Col. W. H. Heuer, placed the amount of débris from Marysville to Daguerre Point, a distance of $9\frac{1}{2}$ miles, at 308,000,000 cubic yards, and estimated 100,000,000 cubic yards more to the Smartsville dumps, or a total of 408,000,000 cubic yards.

I am of the opinion, in the light of later borings by the Commission, together with borings made by private parties that I can not make public, that there are at least 600,000,000 cubic yards of débris deposited within this area. Of this amount, taking a mean fill of 4 feet, there were deposited during the period 1879–1899, between the railroad bridge and the State dam, 66,918,000 cubic yards, and from the State dam to the Narrows (Report of California Débris Commission), 33,637,000 cubic yards, or a total of 100,550,000 cubic yards.

This represents the cleaning of the cañons, the washings of the hydraulic and other mines, and from natural causes.

During this period the hydraulic mines were in operation for five years at their highest activity, and subsequently with varying degrees of decadence, if the papers of the valley are to be believed, proving that the official estimates of the annual débris flow from the mines are erroneous.

This vast deposit of débris should be charged to the following causes:

1. Early "'49" washing and methods;
2. Later hydraulic mining;
3. Drift mining;

4. Quartz mining;

5. Natural erosion.

The methods of moving material in the mines have been one of continual improvement. Starting with the pan and rocker, it advanced rapidly to the "long tom" and sluice-boxes; then came the methods of ground sluicing and booming. Methods of no mean capacity.

The ground worked was the light surface soil and loose gravel banks easily broken down and transported. Water was brought upon the ground in time in small ditches, the period of working being winter and rainy months.

At an early date came the invention of hydraulic mining in the shape of a rawhide or canvas hose and a wooden plug or tin nozzle. It was a muscle-saving device that disintegrated the gravel better than the other methods, but not of capacity. Soon came the substitution of iron for pipes and nozzles, which finally culminated in the invention of the "giant" by Richard Hoskins, of Marysville, in 1870. With this invention it became possible to use water in large quantities under high heads.

Yet with the primitive methods there was produced in the State at the close of 1869, gold valued at \$876,523,905.

Later Hydraulic Mining.—With the invention of the Hoskins giant came the consolidating and patenting of the small claims, the expenditure of millions of dollars in the enlarging of existing ditches, and the construction of large canals and reservoirs (those in Nevada County being completed about 1875), making it possible to operate nearly the entire year with large heads and great pressure. By this means it was possible, aided by the use of powder, to handle the main banks of the gravel deposits, which were often cemented and carried quite a large percentage of bowlders.

The amount of material moved to the miner's inch of water was rapidly reduced as the banks became higher. The ratio of the coarse material also increased.

If it were not for these factors, and the further fact that the coarse material has deposited itself near the margin of the foothills, it would not have been possible to have carried on the amount of placer mining that has existed during the past twenty years.

Drift Mining.—The gravel from drift mines comes from near the bed-rock and is usually of a coarse nature. No segregation of this class can be made, but, like quartz mining, it is a small factor.

Quartz Mining.—While it has been generally recognized that the quartz mills have sent down a great deal of sand such as would deposit itself in the lower reaches of the Yuba and the navigable rivers, still, when considering it with a million cubic yards as a unit, the aggregate output has been insignificant.

Natural Erosion.—This is a factor that has been but little understood. With the valley advocates it has been derided, and they have endeavored to ridicule it out of the problem. With the miners it has been used as a common excuse for muddy water. Engineers, in discussing the same, have based their figures upon the reported erosion of the Mississippi, the River Po, or the Ganges. Seemingly no attempt has been made to determine it for our débris-laden rivers. Erosion depends largely upon the character of the soil, whether light or heavy; the topography; the rainfall, whether in drizzling showers or in cloudbursts, etc. While the various factors entering into the decay of rocks, the carving of cañons, the natural planing of the highlands and the filling of the lowlands in the geological periods of time may be borne in mind, the physical problem before us limits erosion to the action of rains on the soil or skin of the mountain sides and valleys.

In the region of the primeval forest, whose soil is covered with a low mat of undergrowth, it may be considered of little moment. But, with the advent of man, and the wants of civilization, the conditions change. With a light soil, such as is found in the mountain region of the Yuba, his stock breaks the surface; his roads, the lumbering interests, the tilling of the soil, the abandoned fields left to the mercy of the elements, all furnish their quota to a silt-laden freshet.

During the past eight years, the writer has endeavored to determine what the relative erosion was on Deer Creek, which flows through Nevada City, the place in which he lives.

Above the town there are about 25 square miles of watershed. Upon this area are some small farms, and lumbering and stock interests. In the years gone by there was, in this watershed, considerable hydraulic mining, which is now practically abandoned. The dumps have been so cut and carried away as not to affect the winter flow. Altogether it can fairly be considered average conditions for natural erosion on the watershed.

On January 3 and 4, 1895, there fell 7.08 inches of rain in twenty-three and one half hours. The creek was very high and muddy. The percentage of silt was determined and a rough gauging of the flow was made. After making liberal deductions for safety, it was found that the creek carried 86,000 cubic yards of material past the town in twenty-four hours. Two thirds of this, by weight, may be counted as sand, being the mean of a large number of observations and checked by a comparison of the composition of the soils. At that time the Excelsior Water and Mining Company was hydraulicking at Smartsville, impounding the débris in a worked-out pit. It is one of the largest concerns that operated under the California Débris Commission. Yet that storm sent down more material in one day than the Excelsior Company mined in six weeks—boulders, cobble, gravel, sand, and "slickens."

Some years ago an enterprising citizen of Nevada County cleared a ten-acre lot for a fruit orchard. It was a beautiful tract, having at least twelve inches of rich, loose loam. In two winters, at the outside, the soil was completely swept away to the clayey subsoil. If he had been to the manor born, as it were, it is possible he might have kept his soil some years longer.

These are illustrations of the erosive effect of from 3 to 6 feet of rain that annually falls upon the mountain slopes of the Yuba River and its tributaries. The vast area along the western slope of the Sierras up to an altitude of 4,000 feet is unsurpassed for the production of fruits of a temperate clime. It will be but comparatively a few years until we see there a magnificent fruit orchard, forming an important industry of the region. It is reasonable to expect that the sand flow will increase with the cultivation of the soil.

With the various factors as here presented, it is possible to grasp the meaning of the great sand waste between Daguerre Point and Marysville, which is an immense mining dump, representing the greater portion of the débris from all the mines upon the watershed and the sands from the natural erosion during the past half century. Through this deposit the river is scouring a channel that in time will hold its entire flood flow.

During last January, I visited Marysville and observed the workings of the Yuba River at that point. Some time previous the river had shifted its channel a short distance above the town. At Marysville it had left its bed near the town levee, and was cutting a new bed farther south. Viewed from a mining standpoint, it was a magnificent ground-sluicing operation. But, at what a cost! The sand that it was scouring out was being dumped into the Feather River.

At the mouth of the river, or more properly speaking, at the mouth of the cut-off constructed in 1893 by the General Government, I found that a dam was being formed by the sand which was being washed into the Feather. It was a fan-shaped talus, similar to many deposits found above impounding dams of the hydraulic mines working under the California Débris Commission. The material ranged from gravel the size of small bird's eggs down to sand.

In the Feather River, the deposit had formed a lake that extended above Yuba City. When the cut-off was made, I am informed it reduced the high-water plane nearly two feet at Marysville, one half mile distant. Since then the filling has been so great that the levees along the west bank of the Feather River have been raised five feet during the past five years.

This shoaling of the Feather River will continue for years to come. How serious it will be may be appreciated when it is recalled that the grade of the Yuba River varies up to ten feet to the mile to Daguerre

Point. The sand from the scouring of a channel on this grade is being deposited in the Feather River, where the grade is one foot and less to the mile. It is but reasonable to expect that the material will become coarser in the future, making it difficult to be carried on by the Feather. The net increase of the fill at this point will also become greater, necessitating raising the levees at a higher rate each year. The limit to this fill will be the capacity of the Feather River as a dump.

This levee-building has been a serious burden. Marysville, I am informed, has expended \$700,000 upon its levees, the tax ranging from 50 cents to \$2 on the hundred per annum, in addition to the State and county taxes.

It is time that this levee-building and impairment of navigation should cease; that the methods which have been in vogue during the past twenty years should give way to new methods.

It is important that plans be prepared that will keep every cubic yard possible out of the Feather River, so that the river may scour its channel, which will increase the flood-water carrying capacity now so much needed; while the low-water navigation could be made superior to that of 1850.

In its able report, "The Biggs Commission" says: "If the sand flow from the Yuba and Bear rivers was stopped at once it is probable that the waters of these rivers, with that of the Feather combined, would in one season be able to relieve the shoal places now in the Feather."

This requires that the débris-covered lands of the Yuba now inclosed within the levees extending from the old State dam (the western limit of the present purchases), eight miles to the city of Marysville, comprising about 11,000 acres, should be purchased before any project can be carried out.

The congressional statute limits the expenditure out of the present appropriations to \$20,000, which has now been practically exhausted. Steps should be taken whereby this land can be acquired.

It makes no difference whether there is not another cubic yard of gravel sent down from the mines, or of sands by the storms of winter, there is enough material at the very threshold of Marysville to cause everlasting injury to the Feather River and the fertile lands adjacent thereto. It is providential that there have been no rainy seasons or floods like that of the winter of 1861-2, when the land around Marysville was buried nine feet deep with débris.

If this land is acquired and a plan devised that will keep the vast deposit, or any portion of it, from entering the Feather River, it will also, in the light of experience of the last twenty years, afford ample impounding facilities for the storing of the future débris from the mines and from natural causes as well.

It is the duty of the commercial and mining interests of the State

to relieve Sutter and Yuba counties from the burden they have borne during all these years, and at the same time bring about business conditions in keeping with the progress of the twentieth century.

Respectfully submitted.

W. W. WAGGONER,
Débris Commissioner.

FINANCIAL STATEMENT.

Appropriations for the Fifty-third and Fifty-fourth Fiscal Years.

Salary of Débris Commissioner	\$1,200 00
Traveling and incidental expenses.....	600 00
Salary of Secretary.....	600 00
Printing.....	40 00
Total appropriations.....	\$2,440 00

Expenditures.

Salary of Débris Commissioner	\$900 00
Salary of Secretary.....	450 00
Traveling expenses.....	365 20
Printing.....	8 00
Total expenses.....	\$1,723 20

Appropriation for débris works, March 17, 1897	\$250,000 00
Appropriation for débris works, February 14, 1901.....	150,000 00
Total.....	\$400,000 00

Expenditures.

Purchasing of lands.....	\$8,199 50
Printing specifications	19 50
	<u>\$8,219 00</u>
Remaining on hand	\$391,781 00

TENTH BIENNIAL REPORT

OF THE

Bureau of Labor Statistics

OF THE

STATE OF CALIFORNIA,

FOR THE

YEARS 1901-1902.

F. V. MEYERS, : : Commissioner.



SACRAMENTO:

A. J. JOHNSTON, : : : : : SUPERINTENDENT STATE PRINTING.
1902.

BUREAU OF LABOR STATISTICS,

STATE OF CALIFORNIA.

HON. HENRY T. GAGE, *Governor of California*:

SIR: I have the honor to submit to you herewith the Tenth Biennial Report of this Bureau, covering the years 1901 and 1902.

Very respectfully yours,

F. V. MEYERS,

Commissioner State Bureau of Labor Statistics.

INTRODUCTION.

The statutes under which this Bureau is organized and maintained, and which prescribe the scope of its work and the duties and powers of its officers and agents, are as follows:

Stats. of Cal., 1883, p. 27.

AN ACT TO ESTABLISH AND SUPPORT A BUREAU OF LABOR STATISTICS.

[Approved March 3, 1883.]

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. As soon as possible after the passage of this Act, and every four years thereafter, the Governor of the State shall appoint a suitable person to act as Commissioner of a Bureau of Labor Statistics. The headquarters of said Bureau shall be located in the City and County of San Francisco; said Commissioner to serve for four (4) years, and until his successor is appointed and qualified.

SEC. 2. The Commissioner of the Bureau, before entering upon the duties of his office, must execute an official bond in the sum of five thousand (5,000) dollars, and take the oath of office, all as prescribed by the Political Code for State officers in general.

SEC. 3. The duties of the Commissioner shall be to collect, assort, systematize, and present, in biennial reports to the Legislature, statistical details, relating to all departments of labor in the State, such as the hours and wages of labor, cost of living, amount of labor required, estimated number of persons depending on daily labor for their support, the probable chances of all being employed, the operation of labor-saving machinery in its relation to hand labor, etc. Said statistics may be classified as follows:

First—In agriculture.

Second—In mechanical and manufacturing industries.

Third—In mining.

Fourth—In transportation on land and water.

Fifth—In clerical and all other skilled and unskilled labor not above enumerated.

Sixth—The amount of cash capital invested in lands, buildings, machinery, material, and means of production and distribution generally.

Seventh—The number, age, sex, and condition of persons employed; the nature of their employment; the extent to which the apprenticeship system prevails in the various skilled industries; the number of hours of labor per day; the average length of time employed per annum, and the net wages received in each of the industries and employments enumerated.

Eighth—The number and condition of the unemployed, their age, sex, and nationality, together with the cause of their idleness.

Ninth—The sanitary condition of lands, workshops, dwellings, the number and size of rooms occupied by the poor, etc.; the cost of rent, fuel, food, clothing, and water in each locality of the State; also the extent to which labor-saving processes are employed to the displacement of hand labor.

Tenth—The number and condition of the Chinese in the State; their social and sanitary habits; number of married and of single; the number employed, and the nature of their employment; the average wages per day at each employment, and the gross amount yearly; the amounts expended by them in rent, food, and clothing, and in what proportion such amounts are expended for foreign and home productions, respec-

tively; to what extent their employment comes in competition with the white industrial classes of the State.

Eleventh—The number, condition, and nature of the employment of the inmates of the State Prisons, county jails, and reformatory institutions, and to what extent their employment comes in competition with the labor of mechanics, artisans, and laborers outside of these institutions.

Twelfth—All such other information in relation to labor as the Commissioner may deem essential to further the object sought to be obtained by this statute, together with such strictures on the condition of labor and the probable future of the same as he may deem good and salutary to insert in his biennial reports.

SEC. 4. It shall be the duty of all officers of State departments, and the Assessors of the various counties of the State, to furnish, upon the written request of the Commissioner, all the information in their power necessary to assist in carrying out the objects of this Act; and all printing required by the Bureau in the discharge of its duty shall be performed by the State Printing Department, and at least three thousand (3,000) copies of the printed report shall be furnished the Commissioner for free distribution to the public.

SEC. 5. Any person who willfully impedes or prevents the Commissioner, or his deputy, in the full and free performance of his or their duty, shall be guilty of a misdemeanor, and upon conviction of the same shall be fined not less than ten (10) nor more than fifty (50) dollars, or imprisoned not less than seven (7) nor more than thirty (30) days in the county jail, or both.

SEC. 6. The office of the Bureau shall be open for business from nine (9) o'clock A. M. until five (5) o'clock P. M. every day except non-judicial days, and the officers thereof shall give to all persons requesting it all needed information which they may possess.

SEC. 7. (As amended, Stats. of Cal., 1889, p. 6.) The Commissioner shall have power to send for persons and papers whenever in his opinion it is necessary, and he may examine witnesses under oath, being hereby qualified to administer the same in the performance of his duty, and the testimony so taken must be filed and preserved in the office of said Commissioner. He shall have free access to all places and works of labor, and any principal, owner, operator, manager, or lessee of any mine, factory, workshop, warehouse, manufacturing or mercantile establishment, or any agent or employé of such principal, owner, operator, manager, or lessee who shall refuse to said Commissioner, or his duly authorized representative, admission therein, or who shall, when requested by him, willfully neglect or refuse to furnish to him any statistics or information pertaining to his lawful duties, which may be in the possession or under the control of said principal, owner, operator, lessee, manager, or agent thereof, shall be punished by a fine of not less than fifty nor more than two hundred dollars.

SEC. 8. (As amended, Stats. of Cal., 1889, p. 7.) No use shall be made in the reports of the Bureau of the names of individuals, firms, or corporations supplying the information called for by this Act, such information being deemed confidential, and not for the purpose of disclosing any person's affairs; and any agent or employé of said Bureau violating this provision shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not to exceed five hundred dollars or by imprisonment in the county jail not to exceed six months.

SEC. 9. (As amended, Stats. of Cal., 1889, p. 7.) The Commissioner shall appoint a deputy, who shall have the same powers as the said Commissioner, and such agents or assistants, not exceeding three, as he may from time to time require, at such a rate of wages as he may prescribe, but said rate must not exceed four dollars per day and actual traveling expenses for each person while employed; he shall procure rooms necessary for offices, at a rent not to exceed fifty dollars per month.

SEC. 10. (As amended, Stats. of Cal., 1889, p. 7.) The salary of the Commissioner shall be three thousand dollars per annum, and the salary of the Deputy Commissioner shall be eighteen hundred dollars per annum, to be audited by the Controller and paid by the State Treasurer, in the same manner as other State officers; there shall also be allowed a sum not to exceed forty-five hundred dollars per annum for the salaries of agents or assistants, for traveling expenses, and for other contingent expenses of the Bureau.

SEC. 12. (As amended, Stats. of Cal., 1901, p. 12.) Whenever complaint is made to the Commissioner that the scaffolding, or the slings, hangers, blocks, pulleys, stays, braces, ladders, irons, or ropes of any swinging or stationary scaffolding used in the construction, alteration, repairing, painting, cleaning, or painting of a building are unsafe or liable to prove dangerous to the life or limb of any person, such Commissioner shall immediately cause an inspection to be made of such scaffolding, or the slings, hangers, blocks, pulleys, stays, braces, ladders, iron, or other parts connected therewith. If after examination such scaffolding or any such parts is found dangerous to life or limb, the Commissioner shall prohibit the use thereof, and require the same to be altered and reconstructed so as to avoid such danger. The Commissioner, Deputy Commissioner, or agent or assistant making the examination shall attach a certificate to the scaffolding, or the slings, hangers, irons, ropes, or other parts thereof, examined by him, stating that he has made such examination and that he found it safe or unsafe as the case may be. If he declared it unsafe, he shall at once, in writing, notify the person responsible for its erection of the fact and warn him against the use thereof. Such notice may be served personally upon the person responsible for its erection or by conspicuously affixing it to the scaffolding or the part thereof declared to be unsafe. After such notice has been so served or affixed the person responsible therefor shall immediately remove such scaffolding or part thereof and alter or strengthen it in such a manner as to render it safe, in the discretion of the officer who has examined it or of his superiors. The Commissioner, his deputy, and any duly authorized representative whose duty it is to examine or test any scaffolding or part thereof as required by this section, shall have free access, at all reasonable hours, to any building or premises containing them or where they may be in use. All swinging and stationary scaffolding shall be so constructed as to bear four times the maximum weight required to be dependent therefrom and placed thereon, when in use, and not more than four men shall be allowed on any swinging scaffolding at one time.

This Act shall take effect immediately.

Stats. of Cal., 1889, p. 3.

AN ACT TO PROVIDE FOR THE PROPER SANITARY CONDITION OF FACTORIES AND WORKSHOPS, AND THE PRESERVATION OF THE HEALTH OF THE EMPLOYÉES.

[Approved February 6, 1889.]

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. Every factory, workshop, mercantile or other establishment, in which five or more persons are employed, shall be kept in a cleanly state and free from the effluvia arising from any drain, privy, or other nuisance, and shall be provided, within reasonable access, with a sufficient number of water-closets or privies for the use of the persons employed therein. Whenever the persons employed as aforesaid are of different sexes, a sufficient number of separate and distinct water-closets or privies shall be provided for the use of each sex, which shall be plainly so designated, and no person shall be allowed to use any water-closet or privy assigned to persons of the other sex.

SEC. 2. Every factory or workshop in which five or more persons are employed shall be so ventilated while work is carried on therein that the air shall not become so exhausted as to be injurious to the health of the persons employed therein, and shall also be so ventilated as to render harmless, as far as practicable, all the gases, vapors, dust, or other impurities generated in the course of the manufacturing process or handicraft carried on therein, that may be injurious to health.

SEC. 3. No basement, cellar, underground apartment, or other place which the Commissioner of the Bureau of Labor Statistics shall condemn as unhealthy and unsuitable, shall be used as a workshop, factory, or place of business in which any person or persons shall be employed.

SEC. 4. (As amended, Stats. of Cal., 1901, p. 571.) In any factory, workshop, or other establishment where a work or process is carried on by which dust, filaments, or injurious gases are generated or produced, that are liable to be inhaled by persons employed therein, the person, firm, or corporation by whose authority the said work or process is

carried on shall cause to be provided and used in said factory, workshop, or establishment an exhaust fan or blower, with pipes and hoods extending therefrom to each wheel or other apparatus used to grind, polish, or buff metals. The said fan or blower, and the said pipes and hoods, all to be properly fitted and adjusted, and of power and dimensions sufficient to effectually prevent the dust and filaments produced by the above said metal-polishing, metal-grinding, or metal-buffing from escaping into the atmosphere of the room or rooms of said factory, workshop, or establishment where persons are employed.

SEC. 5. Every person, firm, or corporation employing females in any manufacturing, mechanical, or mercantile establishment shall provide suitable seats for the use of the females so employed, and shall permit the use of such seats by them when they are not necessarily engaged in the active duties for which they are employed.

SEC. 6. (As amended, Stats. of Cal., 1901, p. 572.) Any person or corporation violating any of the provisions of this Act is guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than fifty dollars nor more than three hundred dollars, or by imprisonment in the county jail for not less than thirty days nor more than ninety days, or by both such fine and imprisonment, for each offense.

SEC. 7. It shall be the duty of the Commissioner of the Bureau of Labor Statistics to enforce the provisions of this Act.

SEC. 8. This Act shall take effect and be in force from and after its passage.

Now it may well readily be recognized that to cover, simultaneously, this whole field of work, and to present, biennially, up-to-date statistics covering each subject enumerated, is a task impossible to perform with the force and means at the Bureau's command; hence, the rule has been, and is, so far as statistical work is concerned, to attempt to cover at any one time, or during any one term, some only of the subjects enumerated, leaving the remainder thereof to other times and terms. In connection with this method, however, an evil results (and observation shows that the same evil extends to the Bureaus of other States and countries), to wit: lack of coherence and cohesion in method and result. A statistical subject may be carefully treated in one biennial report and in connection therewith conditions concurrent with the time of said report presented, yet the same subject may not be noticed at all for an indefinite time in prior or subsequent reports.

The reports of some of the States and countries may, at a given time, present statistics as to some industrial subject, while the reports of all other States and countries are silent in regard thereto, whereby it results that the seeker of knowledge along any industrial line finds himself continually halted by the lack of continuity and cohesion here referred to. Far more satisfactory and perfect results would be attained by methods which would permit the statistics of each industrial subject, within the scope of the Bureau, to be brought down to date and presented in each succeeding report thereof, and the same applies as well to the work of other States. These methods may become possible in the hereafter, but dealing with the present time, and noting in the Ninth, or last, Bien-

nial Report of this Bureau, the following subjects received attention, namely:

- Convict Labor;
- Orphan Asylums and Institutions for the Deaf and Blind;
- Alien Labor;
- Female Labor;
- Labor-saving Appliances and Processes;
- Agricultural and Viticultural Products;
- Condition of Wage-earners in California as compared with the Condition of those in Other Places;
- Some of the Labor Laws of California;
- Employment Agencies;
- Labor Organization;
- A Compilation of the Labor Laws of California.

There has been collected during the last two years and tabulated and now presented in this report, data in relation to further subjects, to wit:

- Agricultural Labor in the State of California;
- Wages and Hours of Labor per Diem, etc., of Miners in the State of California;
- The Lumber-making Industry in California;
- Japanese in California;
- The Enforcement of some of the Labor Laws of California;
- Children of Wage-earners, and Higher Education, in California;
- Comparison between Hours Worked per Diem by, and Wages Paid per Diem to, Wage-Workers in the State of California in the year 1902, and such Hours and Wages in the year 1900;
- A List of the Labor Organizations in California;
- Arbitration in Wage and Other Disputes between Capital and Labor;
- Financial Statement;
- An Appendix containing Laws pertaining to Labor enacted in California since the publication of the Ninth Biennial Report of the Bureau.

The ability of the Bureau to collect data has been limited by the smallness of the appropriation for agents' salaries, and traveling and other contingent expenses, and it again now finds that the size of the present report must be kept within limits commensurate with the amount (some twelve hundred dollars) available in the printing fund of the Bureau, for the printing of the same.

However, it is believed that fairly good results are shown, and if in the report merit does in any degree appear, due recognition therefor should be given to the Deputy Commissioner, Mr. J. D. Kelsey, and to the Special Agents, E. L. Reguin, K. Zwicker, L. Brosnan, W. P. Day, and Walter McArthur, whose assistance in regard to the work of the Bureau has been cheerfully and earnestly rendered.

AGRICULTURAL LABOR IN THE STATE OF CALIFORNIA.

Agricultural labor, as here spoken of, includes the labor which is employed in various capacities in sowing, cultivating, harvesting, and marketing cereals, and is to be distinguished from labor employed in vinicultural, viticultural, and horticultural pursuits in this State. In this connection it should be remembered that, owing to climatic conditions and to methods necessarily employed in the industry here in question, there is marked fluctuation in the volume of farm labor required and employed during some as compared with that employed during other portions of the year, thus:

The climatic year in California is divided practically into a wet and a dry season; the wet season extending from about November first to May first, and the dry season from about May first to November first. The work of sowing here spoken of is begun about the month of November in each year and continues in more or less degree up to about the middle of February. Within said time a very considerable number of wage-workers must be employed; not, however, by any means as many as those employed later in harvesting. The sowing of the grain having been fully completed, as said, by about the middle of February, there then ensues a period of about three months (that is to say, ending with about the middle of May) during which there is almost absolutely no employment on farms for ninety per cent of the labor previously employed in sowing as named. With the middle of May the harvesting of hay begins, and a limited number of farm laborers again find employment. It is here said "a limited number," because, as a rule, in most of the farming localities in California the making of hay is but an incident in connection with the raising of grain, and is not by any means a leading feature of agricultural industry. About the middle of June the harvesting, *i. e.*, the cutting, threshing, sacking, and marketing or warehousing of the grain, begins and continues ordinarily for about ten weeks; that is to say, until about September first. Within this period, and especially in those years during which large grain crops are raised in the State, the demand for farm labor is almost unlimited and vast numbers of men find employment in the grain fields. From the first of September and continuing for ten weeks, or until about the middle of November, there, however, again ensues a period of enforced idleness

for, approximately again, ninety per cent of the labor employed in harvesting as named. During these periods of idleness the worker is, in most cases, forced to "move on," his erstwhile employer not being able meanwhile to give him employment or to bear the cost of his maintenance until the next period of activity on the farm begins.

Seeking among the industrial statistics of the State for information as to the condition of these wage-workers, their earnings, hours of labor per diem, etc., it is found that in the few cases in which reference is made at all to the matter the information set forth is so limited as to be of little value. California has been and is largely indebted to her agricultural resources for the peace and prosperity which she enjoys, and certainly the workers who perform and have performed the labor necessary to develop and utilize those resources, humble and obscure though their individual work may be, are entitled to attention and recognition as being in the aggregate a mighty factor in the upbuilding of the State. With these thoughts in mind this Bureau caused to be sent indiscriminately to the employers of the workers here named, and to such workers themselves, copies (to the number of 800) of the following letter, to wit:

BUREAU OF LABOR STATISTICS, STATE OF CALIFORNIA,
SAN FRANCISCO, July 25, 1901.

DEAR Sir: This Bureau wishes to publish, in its next Biennial Report, an article on the subject: "Agricultural Labor in the State of California," and hence wishes to carefully gather data for that purpose.

Believing that you are well qualified so to do, and assuring you that any information so given by you will, if you so wish, be treated as entirely confidential, so far as your identity in connection therewith is concerned, I venture to mail to you the form found on the reverse side hereof, and ask if you will kindly fill out the blanks therein with answers to the questions asked—giving (according to your best knowledge, information, and belief) as full and correct answer as possible to each question, and then mail the same to this office, addressed: "F. V. Meyers, Commissioner, State Bureau of Labor Statistics, 927 Market Street, San Francisco, Cal."

If you can comply with this request I will regard the act as a personal favor. If you are unable personally to attend to it, can not you hand it to a young son or daughter to give attention to it? No doubt in many cases the younger generation would take interest in the matter, and I would be glad to hear from them.

Hoping to have an early return, and thanking you in advance for the favor, I am,

Yours very truly,

F. V. MEYERS,

Commissioner, State Bureau of Labor Statistics.

The form here referred to is as follows:

FORM.

Please give answers to the following questions, viz.:

(1) Are White laborers employed in any considerable number in your vicinity during the sowing and harvesting seasons in agricultural farm work? *Ans.:*

(a) Same as to Chinese laborers? *Ans.:*

(b) Same as to Japanese laborers? *Ans.:*

(c) Same as to Mexican laborers? *Ans.:*

(2) What number of hours are said White laborers required to work per day as a day's work, and what amount are they paid as wages, during sowing season, and again,

as to the same during harvesting season? *Ans.*: Sowing season, work ---- hours per day, and paid \$---- per ----; harvesting season, work ---- hours per day, and paid \$---- per ----.

(a) Same as to Chinese laborers? *Ans.*: Sowing season, work ---- hours per day, and paid \$---- per ----; harvesting season, work ---- hours per day, and paid \$---- per ----.

(b) Same as to Japanese laborers? *Ans.*: Sowing season, work ---- hours per day, and paid \$---- per ----; harvesting season, work ---- hours per day, and paid \$---- per ----.

(c) Same as to Mexican laborers? *Ans.*: Sowing season, work ---- hours per day, and paid \$---- per ----; harvesting season, work ---- hours per day, and paid \$---- per ----.

(3) Is the White laborer furnished with board and lodging, in addition to the wages paid as described? *Ans.*: ----.

(a) Same as to Chinese laborer? *Ans.*: ----.

(b) Same as to Japanese laborer? *Ans.*: ----.

(c) Same as to Mexican laborer? *Ans.*: ----.

(4) When board and lodging are furnished as said, what, ordinarily, is the quality thereof, as compared with a fair American standard of living? *Ans.*: ----.

(5) What nationality predominates among the White laborers above named? *Ans.*: ----.

(6) Are said White laborers, as a rule, reliable and stable in their habits and work, or are they uncertain and migratory? *Ans.*: ----.

(7) What, in your judgment, is the condition of White laborers as herein named, compared with the condition of laborers and mechanics employed in the other vocations in this State, as regards their hours of service per day, the wages they receive, and their general treatment by employers? *Ans.*: ----.

(8) What, in your judgment, should be done, or can be done, to improve the standard and condition of the farm laborer of this State? *Ans.*: ----.

(9) If White farm laborers are, as a rule, uncertain and migratory, as named in query 6, state why, in your judgment, they are so. *Ans.*: ----.

Signed and returned by -----

Through the medium of the replies received to the foregoing a mass of data was accumulated, which, when assorted, tabulated, and compared, has been made the basis of the following summarized statement, to wit:

The number of hours per diem worked by White wage-earners on the agricultural farms in California during sowing season ranges on an average from 10 to 11, and during harvesting season, from 12 to 13.

The wages per diem paid to White labor employed on the agricultural farms in California range on an average, during the sowing season, from \$1 to \$1.15, with board, and during harvesting season, from \$1.50 to \$2, with board.

Of the replies received to the query as to the quality of board furnished to workers on farms, 64 per cent declared such board to be good; 15 per cent declared it to be fair, and 21 per cent declared it to be very bad.

Of the replies received to the query as to the predominating nationality of the workers employed on farms, 64 per cent declared such predominating nationality to be American; 3 per cent declared it to be Irish; 6 per cent declared it to be German; 3 per cent declared it to be Italian;

3 per cent declared it to be Mexican; 6 per cent declared it to be Portuguese; 3 per cent declared it to be Swiss; and 10 per cent declared it to be indiscriminately mixed.

Noting the seeming inconsistency as here shown, be it remembered that the replies in question were gathered from all parts of the State; that in certain localities it commonly happens that one nationality may predominate in the matter of labor employed, while in another locality another nationality may thus predominate, and that the senders of the replies in most cases voiced their impressions as derived from their immediate environment.

Of the replies received to the query as to the stability and reliability of the wage-workers finding employment on agricultural farms, 62 per cent declared such wage-workers to be, as a rule, reliable, and 38 per cent declared them to be utterly unreliable and unstable.

To the query as to the cause of the instability among wage-workers on farms, where the same existed, 16 per cent of the replies received declared said cause to be intemperance; 5 per cent declared it to be instability of employment; 6 per cent declared it to be poor quality of board and lodgings furnished to such labor; 10 per cent declared it to be bad treatment at the hands of employers; 10 per cent declared it to be low wages paid to such labor; 11 per cent declared it to be natural shiftlessness on the part of such labor, and 42 per cent attempted no explanation.

Of the replies received to the query as to the condition of farm wage-workers when compared with the condition of wage-workers in other vocations, 43 per cent declared such condition, as so compared, to be good; 9 per cent declared it to be very good; 6 per cent declared it to be better; 10 per cent declared it to be fair; 7 per cent declared it to be poor; 10 per cent declared it to be very poor, and 10 per cent attempted no explanation.

Of the replies received to the query as to whether or not Chinese were employed, 21 per cent answered "yes," and 79 per cent answered "no." In this connection be it observed that in a comparatively few cases are Chinese employed in field work on agricultural farms in this State, and it is most unusual to hear of a regular sowing or harvesting crew on a grain farm in California being composed entirely of Chinese; and, passing, it may be said here that the same is true as to Japanese. Where Chinese are employed in the fields on grain farms their hours of labor per diem are practically the same as are the hours of White labor. Where Chinese are employed in the way named their wages per diem during sowing season are usually about \$1, and during harvesting season from \$1.15 to \$1.25. Usually, while so employed, their board is furnished the same as is the case with White labor, although in some cases the rule is otherwise.

Of the replies received to the query as to the employment of Japanese, 12 per cent answered that Japanese were thus employed, while 81 per cent answered that they were not. Seven per cent made no explanation. Here should be borne in mind the explanatory paragraph hereinbefore appearing with the matter of predominating nationalities, etc. Where Japanese are, in fact, employed as here contemplated, their hours of labor per diem are practically the same as are the hours of White or Chinese workers, and their wages per diem range about the same as the wages of Chinese.

Of the replies received to the query as to the employment of Mexicans, 27 per cent replied that Mexicans were thus employed, as against 73 per cent which replied that they were not. Where Mexicans are thus employed, their hours of labor per diem are the same as are the hours of other nationalities, as hereinbefore shown, and their wages per diem are about \$1 during the sowing and \$1 to \$1.15 during harvesting. Board is as a rule furnished to Mexican workers, in addition to the wages named.

The replies received to the query as to what could or should be done to improve the standard and condition of the farm laborer of this State, were in great variety, and those typical among them are given here verbatim, to wit:

- Close saloons on Sundays;
- Pay wages only once a month;
- Give fewer hours of work and better pay;
- Prevent the workers from going to town;
- Improve the accommodations given them; treat the workers as human beings;
- Give the workers good board and lodging;
- Shut out the foreign element;
- Protect the men who take the place of strikers;
- Organize unions among such workers;
- Give such workers regular employment;
- Let such employers show more interest in the welfare of their employés;
- Exclude hobos;
- Raise prices of produce;
- Restrain "trusts," which seem to be strangling the producer, who then may be able to treat his employés better;
- Secure Government ownership of the means of production and distribution; -
- Educate boys to industry;
- Lessen taxes;
- Build dams so as to have a good crop each year;

Provide for a fixed number of hours per diem for such labor;
Build more churches;
Have smaller farms;
Etc., etc.

Recalling that these suggestions as to remedy have come from those actually engaged either as employers or employés in actual agricultural work, the lack of consistency and harmony as between the said suggestions is somewhat startling.

Carefully contemplating the whole question, it appears logical to believe that instability of employment, arising in the main from the causes hereinbefore shown, is responsible in larger degree than is any other one cause for the complaints which persistently arise from and on behalf of the wage-workers here in question in California. With work continuing more generally throughout the whole year, the necessity which these workers are under to "move on," as hereinbefore said, would, in large measure, disappear. With a certain regular staff of employés the year round the employer would be under much greater incentive to provide in the way of permanent and comfortable lodging and boarding accommodations than is the case as now; and perhaps he who suggested "Smaller farms," as above said, came nearer to the line of practical remedy than did the others whose suggestions have been set forth.

WAGES, HOURS OF LABOR PER DIEM, ETC., OF MINERS IN THE STATE OF CALIFORNIA.

The above-named is a subject which hitherto has had meager attention in the reports of this Bureau. Certainly not for the reason that it is unimportant, for when comparisons are made, it is found that the mining industry is vast in its magnitude and in its wealth-producing results. It has been stated that the aggregate mineral output of the State of California, from the inception of mining therein down to the present time, has added two billion dollars to the world's wealth. The amount of labor employed in the various ways in contributing to this result is beyond calculation. It is said, too, that there are some thirty different kinds of minerals, aside from gold, which are produced in the State. Its principal mineral products, however, are:

Gold,	Lead,
Copper,	Granite,
Petroleum,	Bitumen,
Quicksilver,	Lime,
Silver,	Borax, etc.

Interest here in the subject of mining, however, goes more to questions directly concerning the relation of the industry to the well-being of the wage-workers in this State, and thus this Bureau, during the year 1901, prosecuted as thoroughly as possible inquiry along such lines. Arising from the fact that the contingent expense appropriation was not sufficient to defray the expense of sending agents to the various mining localities of the State to make inquiries direct—a serious obstacle in the way of full success when gathering particular data—resort had to be had entirely to written requests in seeking desired information. The utter uncertainty of this means of securing such information has been so often dilated upon in the reports of this Bureau that I will not consume space by repetition here.

Following the purpose here named as in view there was first sent, on March 8, 1901, to the several County Assessors in the State, a letter asking them to return, each as regards his respective county, lists of the mines in the various counties, together with the locations thereof, as the same appeared on the assessment rolls.

Be it remembered in this connection, that by the law of this State it is made the duty of the said Assessors to furnish to this Bureau, upon

the written request of the Commissioner thereof, information such as is here referred to. Of the fifty-seven Assessors to whom, respectively, copies of the above said letter were in the first instance addressed, thirty only made replies. Of such thirty the majority sent cheerfully the full information sought, or, where the same was not the fact, the statement "No mines," and the others made promise to send such information as soon as their current assessment rolls were fully made up; and to all of these the earnest thanks of this office are due and are hereby tendered.

On April 26, 1901, a second letter embodying a request similar to that next above named, was sent to the several Assessors who had ignored the first communication. This second letter brought ten additional replies.

On September 13, 1901, a third letter, still again embodying the herein said requests, was sent to each of the several Assessors who had up to that time failed to send the information sought, and this brought eight additional replies. The Assessors of, respectively, Alpine, Butte, Colusa, Del Norte, Fresno, Kern, Lassen, Mariposa, San Bernardino, San Mateo, Siskiyou, and Tuolumne counties entirely ignored all three communications.

The Assessor of Calaveras County, replying only to the third communication, said in substance that, weighted down as he was by the arduous duties of his official life, he had no time to scan his assessment rolls for the data desired.

The Assessor of Nevada County, replying to the second communication, stated that he would send the data at a little later date, but the promise has proved to be in the nature of a "gold brick," for this Bureau has not heard from him since.

The Assessor of San Diego County reported "No data," and the return "No mines" was made by the several Assessors of Glenn, Kings, Mendocino, Merced, Modoc, San Mateo, Sutter, Tehama, and Yolo counties.

While, as said, the law of this State makes it the duty of the several Assessors to furnish to this Bureau the information here described, upon written request, no penalty for non-compliance is specifically provided. It is indeed not exactly clear what particular kind of offense has been committed by those Assessors (and including the Assessor of Calaveras County) who ignored wholly the letters named; although the representatives of the Bureau are convinced that it is some form of *lèse-majesté*. Their endeavor will be, however, to carefully determine as regards thereto without delay, and probably suggestion will be made to our Legislature at its next session that a law be enacted determining the nature of the offense and providing a penalty which will "fit the crime."

In further search of data a communication was, on the 21st of March,

1901, mailed to each local union of the Miners' Western Federation in the State (eight in number), asking for lists of names and locations of mines within their respective jurisdictions, with result that reply and information was received from:

Local No. 61, Bodie, Mono County.

Local No. 47, Confidence, Tuolumne County.

Local No. 51, Mojave, Kern County.

Local No. 44, Randsburg, San Bernardino County.

Securing as here named, and from other sources, the names and locations of most mines in the State, there was sent to their respective managers copies of the following communication, to wit:

BUREAU OF LABOR STATISTICS, STATE OF CALIFORNIA,
927 MARKET STREET,

SAN FRANCISCO, March 21, 1901.

Mr. -----,

Manager ----- Mine, -----, Cal.

DEAR SIR: The Commissioner of the Bureau of Labor Statistics has instructed me to ascertain, if possible, the number of persons employed, hours worked per day, and the amount paid for labor during the year 1900 in the mines of this State.

If you will assist us by filling in the inclosed form and returning it to us, your kindness will be much appreciated. Whatever information you give us will be treated as confidential; your name or the name of your company will in no way be identified with the same, unless you so desire.

The Statutes of 1883, page 27, say: "The Commissioner of this Bureau shall investigate the condition of labor in the mines of this State, and report the same to the Legislature biennially."

Hoping that at your early convenience you will comply with our request, and thanking you in advance for the favor, I am,

Yours very truly,

J. D. KELSEY,

Deputy Commissioner State Bureau Labor Statistics.

Following is the form referred to in the above quoted letter, to wit:

FORM.

Number of persons employed at mines? Whites, ----; Chinese, ----; Japanese, ----.
Number of hours required for a day's work? -----
Total amount paid for labor during year? -----
Number of months worked during year? -----
Number of persons injured during year? -----
Number of persons killed during year? -----

The names of some hundreds of mine workmen were also secured, and to each of them, respectively, was sent a copy of the letter here following, to wit:

BUREAU OF LABOR STATISTICS, STATE OF CALIFORNIA,
927 MARKET STREET,

SAN FRANCISCO, -----, 1901.

DEAR SIR: This Bureau wishes to publish an article on "Labor in the Mines of California" in its Biennial Report, and hence wishes to carefully gather data for that purpose.

Believing that you are well qualified so to do, and with the assurance to you that any information given will be treated as entirely confidential so far as your identity is concerned if you so wish, I venture to send to you the inclosed form and ask if you

will kindly fill out the same with the names of all the mines within your knowledge and vicinity, together, in connection with each one, respectively, with the data called for by the blank herewith, as regards mine signals used, sanitary conditions, miners employed, etc.

If you will do this and return the form to me by mail, I will regard the act as a personal favor.

Any remarks, information, or views of your own, which you may deem pertinent, and which you may include in your return, will be thankfully received.

Hoping to have your early reply, and thanking you in advance therefor, I am,

Yours very truly,

F. V. MEYERS,

Commissioner State Bureau of Labor Statistics.

Following is the form referred to in the above letter, to wit:

FORM.

Kind of mine? -----
 Name of mine? -----
 Address of mine? -----
 Are code signals used in mine? -----
 Sanitary conditions and safety precautions? -----
 Number and nationality of miners employed? Whites, ----; Chinese, ----; Japanese
 ----; Mexicans, ----.
 Wages per diem paid to? Chinese, ----; Japanese, ----; Mexicans, ----.

Taking again the returns from these foregoing communications, meager though they in some cases were, together with all other available sources of information, we find that there are but few counties in the State which do not produce some kind of mineral; thus, they severally are shown as producing minerals as follows:

ALAMEDA—	Coal, chromic iron, macadam, manganese, petroleum, salt, and sandstone.
ALPINE—	Gold and mineral waters.
AMADOR—	Copper, gold, and marble.
BUTTE—	Gold and mineral waters.
CALAVERAS—	Copper, gold, chromic iron, and marble.
COLUSA—	Gold, mineral waters, petroleum, quicksilver, and sandstone.
CONTRA COSTA—	Coal, limestone, mineral waters, petroleum, and sandstone.
DEL NORTE—	Copper, gold, chromic iron, platinum, and sandstone.
EL DORADO—	Copper, gold, marble, and slate.
FRESNO—	Copper, gold, chromic iron, limestone, mineral waters, and quicksilver.
HUMBOLDT—	Coal, copper, gold, mineral waters, platinum, and sandstone.
INYO—	Argentiferous galena, borax, gold, marble, mineral waters, and soda.
KERN—	Antimony, asphaltum and bituminous rock, gold, limestone, petroleum, and silver.
LAKE—	Borax, mineral waters, quicksilver, and sulphur.
LASSEN—	Gold and mineral waters.
LOS ANGELES—	Coal, gold, macadam, marble, and petroleum.
MADERA—	Copper, granite, and marble.
MARIN—	Asphaltum, copper, macadam, mineral waters, and paving-blocks.
MARIPOSA—	Gold and marble.
MENDOCINO—	Bituminous rock, copper, gold, chromic iron, mineral waters, and sandstone.
MONO—	Gold, marble, and mineral springs.
MONTEREY—	Asphaltum and bituminous rock, coal, gold, mineral waters, and sandstone.

NAPA—	Basalt, chromic iron, gold, mineral springs, paving-blocks, quicksilver, sandstone, and silver.
NEVADA—	Copper, gold, and granite.
ORANGE—	Argentiferous galena and gold.
PLACER—	Gold and granite.
PLUMAS—	Gold, mineral springs, and platinum.
RIVERSIDE—	Antimony, coal, copper, gold, and salt.
SACRAMENTO—	Gold, granite, and macadam.
SAN BENITO—	Coal, gold, mineral waters, and quicksilver.
SAN BERNARDINO—	Argentiferous galena, borax, cement, copper, gold, limestone, salt, and silver.
SAN DIEGO—	Gold and granite.
SAN FRANCISCO—	Macadam.
SAN LUIS OBISPO—	Chromic iron, gold, quicksilver, and sandstone.
SANTA BARBARA—	Asphaltum and bituminous rock, gold, mineral springs, petroleum and sandstone.
SANTA CLARA—	Asphaltum and bituminous rock, chromic iron, granite, limestone, macadam, mineral springs, petroleum, quicksilver, and sandstone.
SANTA CRUZ—	Asphaltum and bituminous rock, limestone, mineral springs, and petroleum.
SHASTA—	Chromic iron, coal, copper, gold, granite, limestone, macadam, salt, sandstone, silver, slate, and zinc.
SIERRA—	Chromic iron, copper, gold, and mineral springs.
SISKIYOU—	Argentiferous galena, coal, copper, gold, marble, mineral springs, and quicksilver.
SOLANO—	Cement, macadam, mineral springs, mineral waters, and paving-blocks.
SONOMA—	Chromic iron, coal, gold, limestone, macadam, mineral springs, paving-blocks, quicksilver, and sandstone.
STANISLAUS—	Quicksilver.
TEHAMA—	Chromic iron and mineral springs.
TRINITY—	Coal, copper, gold, granite, marble, mineral springs, platinum, and quicksilver.
TULARE—	Copper, gold, granite, marble, and silver.
TUOLUMNE—	Gold and marble.
VENTURA—	Asphaltum and bituminous rock, gold, mineral springs, petroleum, and sandstone.
YOLO—	Sandstone.
YUBA—	Gold.

It is further shown that the number of the several respective kinds of mines and quarries in the State is about as follows:

Kind of Mine.	No. of Mines.	Kind of Mine.	No. of Mines.
Antimony	7	Macadam	30
Argentiferous galena	26	Magnesite	4
Asphaltum and bituminous rock	50	Manganese	13
Basalt	5	Marble	10
Borax	5	Paving-blocks	35
Cement	1	Quicksilver	70
Chromic iron	9	Salt	20
Coal	15	Sandstone	25
Copper	40	Silver	60
Gold	4,000	Slate	3
Granite	20		
Gypsum	6	Total	4,489
Limestone	35		

Of this vast number, however, only about one fourth are being operated; the remainder being idle, except where, in a comparatively few cases, work is carried on in a small way by owners. As appears, almost ninety per cent of the number of mines in the State are gold mines, and here, too, the number being operated constitutes but about twenty-five per cent of the whole number. Of the number of gold mines named, a small percentage are owned and operated, or leased and operated, by Chinese, the data at hand showing some forty or fifty of such mines in the State. The number of men employed as wage-earners in mines and quarries at this time, aside from the owners working mines as just above named, is about 18,000, of which some 12,000 are found employed in the various gold mines. Of this number (12,000), some 500 are Chinese, who are working in mines or on claims owned or leased, as above said, by Chinese. Some 2,000 men find employment in the copper mines, and a considerable number also in the quicksilver mines. The coal mines of the State are not extensive, and comparatively few men (some several hundred) find employment therein.

There are practically no children employed in the mines of California. And the same may be said as regards Japanese.

Miners' wages, and hours per day's work, in the several kinds of mines in California, range about the same, being in most cases from \$2.50 to \$4 (or on an average about \$3.25) per diem, with ten hours usually per day's work, this latter figure being in a few cases reduced to eight and nine. With view to determining the condition of miners in California as regards wages and hours per day's work, as aforesaid, in comparison with the condition of miners in same regard in other States and in foreign countries, copies of the following letter and form were addressed to various local unions, respectively, of the Western Federation of Miners in the several States, to wit:

BUREAU OF LABOR STATISTICS, STATE OF CALIFORNIA,
SAN FRANCISCO, April 20, 1901.

Mr. _____,
Sec'y Local Union, No. _____, W. F. M.,

-----:

DEAR SIR: Will you kindly return to this Bureau, at your early convenience, the inclosed form, with questions thereon appearing, duly answered as far as your knowledge will permit?

The information sought is desired for statistical purposes in connection with the work of this office, and any assistance given by you will be greatly appreciated by

Yours very truly,

F. V. MEYERS,
Commissioner State Bureau of Labor Statistics.

FORM.

Number of Local Union to whose Secretary this form is sent, No.

Address of said Local Union,

QUESTIONS TO BE ANSWERED.

1. What territory does the jurisdiction of your Local Union embrace?
2. What wages per diem are paid to, and how many hours per diem are worked by, miners in the respective kinds of mines within the said jurisdiction of your Local Union? Also, are children under the age of fourteen years to any extent employed in such mines, and if so, to what extent? (Giving their wages and hours of service per diem). If you can not conveniently make replies in the blanks herein, please make them on separate paper, and return herewith.

Kind of Mines.	Wages per Diem.	Number of Miners Employed.	Hours per Diem Worked.	Number of Children Employed.	Children's Wages and Hours per Diem.	
					Wages.	Hours.
Gold.....	\$.....	\$.....
Silver.....
Copper.....
Lead.....
Iron.....
Coal.....
Quicksilver.....
Marble.....
Granite.....
Sandstone.....
Slate.....

Filled out, signed, and returned by,

.....
Sec'y Local Union No.

Also was sent to each United States consul in the respective foreign countries copies of the following:

BUREAU OF LABOR STATISTICS, STATE OF CALIFORNIA,
SAN FRANCISCO, June 17, 1901.

-----,
United States Consul,:

DEAR SIR: Will you kindly cause inquiry to be made regarding miners' wages (U. S. money) and hours per day in the various kinds of mines in -----? Also to what extent (if any) children are employed, their wages and hours per day?

The information sought is for statistical purposes in connection with the work of this office. We are making a careful investigation of mine labor in California, and we are trying to obtain data regarding the same from all parts of the world as a comparison.

Hoping you will be in a position to procure this data for us, and thanking you in advance for the favor, I am,

Yours very truly,

J. D. KELSEY,
Deputy Commissioner, State Bureau of Labor Statistics.

The responses to these latter communications were generally quite generous, and the thanks of the Bureau are due to the officials of the various local unions named, as well as to the consuls for their assistance thus rendered. From those responses, in connection with the data

otherwise on file, the following tables, which are self-explanatory, are compiled:

MINERS' WAGES, HOURS OF SERVICE PER DIEM, ETC., IN CALIFORNIA AS COMPARED WITH MINERS IN OTHER STATES AND COUNTRIES.

(Be it understood as regards wages in foreign countries that the respective amounts stated in the data received have been reduced to averages, and to U. S. money standards.)

State or Country.	Hours Worked per Diem.	Wages per Diem.	Children Employed	Hours Worked per Diem.	Wages per Diem.	Women Employed	Hours Worked per Diem.	Wages per Diem.
California	8-10	\$2 75-\$3 25	No					
Arizona	8-10	3 00	No					
Colorado	8	3 50	No					
Idaho	10	3 50	No					
Montana	8-10	3 50	No					
Nevada	9-10	3 00	No					
Oregon	10	3 00	No					
South Dakota	10	3 50	No					
Algiers	10	60	No					
Australia	8	2 00-3 00	Yes	8	\$1 30			
Austria		47	Yes		17	Yes		\$0 20
Belgium	11	79	Yes	11	35	Yes	11	45
Bolivia	12	80	Yes	12	35	Yes	12	35
Brazil	9	94	Yes	10	35	Yes	10	35
Cape Colony (natives)	9	1 00	No			No		
Cape Colony (whites)	10	3 50	No			No		
Chili	9	1 00	Yes		25	Yes	9	80
China	8	10 cents and board	Yes					
Corea	10	25	No	8		No		
England	8	1 56	Yes					
France	9	1 10						
Germany		81						
Greece	10	50	Yes	10	25			
India		10 cents and board						
Italy	8-10	0 40-0 50	Few	8-10	14			
Japan	10	25	Yes	9	08			
Mexico	9-10	75	Yes	9	30			
New Zealand	8	2 05	No					
Nicaragua	10	1 00	Yes					
Northwest Territory	10	5 00	No			No		
Norway and Sweden	9	1 30	Yes	9	32			
Persia		50	Few					
Peru	10	1 00	Yes	10	20			
Portugal	10	50	Yes	10	22			
Servia	10	75	Yes	10	30			
Siam	7	15						
South African Republic	10	4 40	No					
Turkey		33						

By a statute of California (Stats. 1893, p. 82), a code or system of signals is required to be used in the shafts, inclines, drifts, cross-cuts, tunnels, and underground workings of mines, these signals being elaborately designated by the statute. With a view to ascertaining how generally the said law is observed in the State, a circular was sent to various sources seeking information in regard thereto. Also, in some circulars was included a request for data regarding the sanitary con-

dition of each respective mine referred to. By the replies received, it was made to appear that the law was being observed in fewer than half of the mines in the States; in fact, according to said replies, and taking the number of mines reported on therein, only 30 per cent thereof were shown as using the code signals, as against 70 per cent not using them. In relation to sanitary conditions, however, a better showing was made, it appearing that in that regard some 78 per cent of mines were in good sanitary condition, as against 12 per cent reported to be bad or unsanitary.

Statutes of California, 1871-2, page 413, and Statutes of California, 1873-4, page 726, collectively, contain provisions which seek to regulate the internal arrangement of mines in this State in the interests of the health and safety of workers therein. Other States and countries generally make similar statutory provisions, and further provide for some State official or inspector to be charged with the duty of and invested with authority to inspect and supervise mines with view to the enforcement of such provisions. In this State, however, no one is charged with the performance of such duty, and it would seem quite proper that legislative attention should be directed to this subject with a view to providing ways and means whereby the statutes of this State here in question should be at all times and in all proper cases enforced.

THE LUMBER-MAKING INDUSTRY IN CALIFORNIA.

A very important industry in California, in relation to the employment of wage-workers, has hitherto received but scant attention in the reports of this Bureau; that is to say, the lumber industry. A small army of men find employment therein, and the value of the industry, in the commercial way, to all classes in the State, can not be over-estimated.

With view, therefore, to present in this report some statistics upon a subject of such large and general interest, this Bureau, during the year 1901, sought as zealously as possible, to secure data in regard thereto through all available channels; and so doing, caused letters of inquiry to be directed to the Assessors of the several counties in the State, to the owners and managers of various lumber camps and mills, to many individuals employed at and in such camps and mills, and to employment agencies and others.

The usual disappointments incident to attempts to gather such data by correspondence were encountered; inquiries were in the usual ratio ignored or imperfectly responded to. Completeness of returns was often not to be had, but with careful assorting and compiling of the data received from all sources, the following figures are given, with the belief that they are approximately correct:

While timber is found in greater or less quantity in most of the counties of the State, those counties which are in any considerable degree lumber producers are: Humboldt, Mendocino, Siskiyou, Trinity, Del Norte, Sonoma, Lake, El Dorado, Plumas, Butte, Sierra, Placer, Calaveras, Amador, Tuolumne, Fresno, Kern, Tulare, Madera, Mariposa, and Mono.

The many varieties of timber include, principally, several species of pine, redwood, hemlock, and spruce. From these varieties of timber lumber of many different kinds is produced, including staves, railroad ties, shingles, shakes, sawed lumber for all purposes, piles, posts, telegraph poles, box materials, etc.

Collectively, about 15,000 persons are directly employed at the various lumber camps and mills throughout the State and are paid annually the vast sum of about \$9,000,000. About 57 per cent (or 8,550) of the said 15,000 persons are employed in the lumber camps, and 43 per cent (or 6,450) are employed at the mills. Of the number employed

at the lumber camps as said, about 4 per cent (or 342), and of those employed at the mills about 2 per cent (or 175), are Chinese. These figures as to Chinese include those employed as cooks and in similar capacities. As a matter of fact, the employment of Chinese in this industry other than as cooks, etc., is not extensive, some few being employed at the mills in piling lumber, and possibly in very exceptional instances in running machines.

Japanese seem in scarcely any degree to be employed. The only return in that regard is as to one mill, in which some twenty-eight were reported to be at work.

The various classes of employment in this industry are shown, together with the wages paid and number of hours per day worked in each respective class, by Table No. 1. The wages paid, as shown, have been in all cases, whether the return has been by the day or by the month, for the sake of ready comparison, reduced to a per diem standard and to averages. In most cases the returns have shown a considerable variation in wages paid, being often given in classes of employment as ranging from, say, \$40 to \$60 per month, etc., or from \$1.50 to \$2.75 per day. It is to be borne in mind, too, that almost invariably in this industry board is furnished to the worker in addition to the wages paid as shown. Hence,

TABLE No. 1.

Prevailing Wages and Hours of Labor in the Lumber Industry in the State of California.

Occupation.	Hours per Day.	Wages per Day.	Occupation.	Hours per Day.	Wages per Day.
<i>Lumber Camps.</i>			<i>Lumber Mills.</i>		
Barkers	10½	\$1 75	Blacksmiths	10½	\$2 25
Blacksmiths	10½	2 25	Block-sawyers		
"Buckers"	10½	1 75	Bolt-sawyers		
Cant-hook men	10½	1 75	Boom-men		
Cable and signal men	10½	2 25	Cooks		3 00
Choppers	10½	*1 35	Edge-men	11	2 50
Cooks		3 00	Engineers	11	3 00
Cooks' helpers		1 15	Filers		4 00
Engineers	10½	2 25	Firemen	11	2 00
Fellers	10½	2 00	Foremen		4 00
Firemen	10½	1 50	Knot-sawyers		
Foreman	10½	3 00	Laborers	10½	1 50
Hook-tenders	10½	1 50	Lath-sawyers	10	3 00
Laborers	10½	1 50	Oilers	11	2 00
Sawyers	10½	2 25	Planer-men	10½	3 00
Skid-greasers	10½	1 50	Sawyers	10½	4 00
Skid-makers	10½	1 50	Setters	10½	2 00
Swampers	10½	2 00	Shingle-packers		†04
Teamsters	10½	2 00	Tally-men	10½	2 75
			Teamsters		2 00

* Per cord.

† Per thousand.

In order to make comparison between wages and hours per diem of workers in the lumber industry in California, and the hours and wages

per diem of similar workers in other States, data were secured from several of such other States, and while not as complete as could be wished for, said data are still sufficient, when compiled, to enable the comparison named to be made with several localities in different parts of the United States. Hence,

TABLE No. 2.

Comparison Between Prevailing Wages and Hours of Labor in the Lumber Industry in the Following Several States:

Occupation.	CALIFORNIA.		MICHIGAN.		WASHINGTON.		VIRGINIA.	
	Hours per Day.	Wages per Day.	Hours per Day.	Wages per Day.	Hours per Day.	Wages per Day.	Hours per Day.	W ges per Day.
<i>Lumber Camps.</i>								
Barkers	10½	\$1 75	10					
Blacksmiths	10½	2 25	10	\$1 92		\$2 50		
"Buckers"	10½	1 75						
Cant-hook men	10½	1 75	10	1 15				
Cable and signal men	10½	2 25				2 50		
Choppers	10½	*1 35	10	1 15				
Cooks		3 00		1 92		2 00		
Cooks' helpers		1 15		1 54		1 25		
Engineers	10½	2 25				2 00	11	\$1 02
Fellers	10½	2 00	10	1 15				
Firemen	10½	1 50				1 75		
Foremen	10½	3 00	10	2 50		3 00		2 00
Hook-tenders	10½	1 50	10	1 08				
Laborers	10½	1 50	10	1 00		1 75	11	81
Sawyers	10½	2 25	10	1 15		3 00	10⅔	1 66
Skid-greasers	10½	1 50	10	1 00				
Skid-makers	10½	1 50	10	1 00				
Swampers	10½	2 00	10	1 00				
Teamsters	10½	2 00	10	1 15		2 00		
<i>Lumber Mills.</i>								
Blacksmiths	10½	2 25	10	2 25				
Block-sawyers			10	2 25		3 75		
Bolt-sawyers			10	2 00		2 75		
Boom-men			10	1 75		2 25		
Cooks		3 00				2 00		
Edge-men	11	2 50	10	2 25				
Engineers	11	3 00	10	2 75		3 25	11	1 02
Filers		4 00	10	5 50		4 00	11	3 66
Firemen	11	2 00	10	1 87		3 00		
Foremen		4 00	10	5 00		4 50		
Knot-sawyers			10	2 00		3 35		
Laborers	10½	1 50		1 50		2 00	11	81
Lath-sawyers	10	3 00						
Oilers	11	2 00		1 50				
Planer-men	10½	3 00		1 50		2 50		
Sawyers	10½	4 00		4 50		3 00	10⅔	1 66
Setters	10½	2 00		2 25				
Shingle-packers		+04						
Tally-men	10½	2 75		1 75		2 25		
Teamsters		2 00		1 50		2 00		

* Per cord.

† Per thousand.

By Table No. 2 it appears that the lumber-worker in California is, as a rule, especially in the matter of remuneration, in better condition than is his co-worker in the other localities with which comparison is

made, although the worker in the State of Washington seems a very close second.

Noting the millions of feet of lumber cut annually from the forests of California, it would on first thought seem that the day of this great industry in the State is passing, and yet reliable authority seems to establish that vast forest reserves, in most cases at present not readily accessible on account of meager means of transportation, are as yet untouched, and hence it must be that for many years to come this industry will be one of great importance in the State.

JAPANESE IN CALIFORNIA.

In the Ninth Biennial Report of this Bureau appears an article under the caption, "Alien Labor in the State of California." What therein appears in relation to the Chinese population of the State remains still, to a great extent, true; the said Chinese population not having increased during the past two years, and general interest regarding the subject during that time only having been aroused by reason of the fact of the nearness of the time of expiration of the prior national Exclusion Law, and the re-enactment of the said law, or perhaps, as properly, the enactment of another Exclusion Law by the United States Congress at its last session.

The subject of the said re-enactment, or enactment, has been heretofore so thoroughly and publicly discussed pro and con through the medium of the press, and otherwise, that it is not felt that additional information can be given to the public by enlarging upon it here, and hence attention will be, in the main, directed to the matter of the Japanese population of the State, which subject was dwelt upon at some length in the before-mentioned article. Thus:

It is there made to appear that in 1900 there were, approximately, from 15,000 to 16,000 Japanese in California. With this as the starting point, the purpose here is to simply and briefly bring the question down to date, through the medium of figures showing the number of Japanese immigrants coming into the State since the said year 1900, and so as to allow clear comparison, it is believed that it will be interesting here to reproduce the tables there set forth, showing the number of such immigrants arriving each month in the State during the year 1899, and a portion of 1900, hence as follows:

In 1899.

Month.	Males.	Females.	Total.
January	59	3	62
February	87	7	94
March	194	21	215
April	315	9	324
May	199	3	202
June	181	15	196
July	145	21	166
August	214	16	230
September	83	5	88
October	100	4	104
November	41	4	45
December	79	1	80
Totals	1,697	109	1,806

In 1900.

Month.	Males.	Females.	By Card from Victoria.	Total.
January	61	1	-----	62
February	151	2	-----	153
March	554	4	-----	558
April	686	13	125	824
May	423	14	300	737
June	120	22	184	326
July	61	10	169	240
August	95	11	113	219
Totals	2,151	77	891	3,119

Bringing down to date the tables above given, we continue as follows:

In 1900.

Month.	Males.	Females.	Total.
September	129	5	134
October	166	10	176
November	200	5	205
December	109	8	117
Totals	604	28	632

In 1901.

Month.	Males.	Females.	Total.
January	69	3	72
February	100	2	102
March	138	19	157
April	124	18	142
May	85	5	90
June	114	25	139
July	97	15	112
August	131	12	143
September	175	15	190
October	105	10	115
November	92	11	103
December	183	20	203
Totals	1,413	155	1,568

In 1902.

Month.	Males.	Females.	Total.
January	85	4	89
February	64	6	70
March	95	11	106
April	134	14	148
May	270	21	291
June	159	17	176
July	169	20	189
August	139	20	159
Totals	1,115	113	1,228

By the foregoing it appears that during the year 1901 and the year 1902, as far as data in regard thereto are given, there has been marked decrease in the number of Japanese immigrants coming into the State, as compared with the year 1900; while as compared with the year 1899, the number of such immigrants is approximately the same. Thus, in the year 1899, 1,809 such immigrants arrived; in 1900, 3,751; in 1901, 1,568; and in 1902, up to September 1st, 1,228, or, with the same ratio maintained, 1,850 for the year.

As regards vocations in which Japanese find employment in the State there has not been an appreciable change in the last two years, they being employed in about the same ways and in about the same proportions as shown by the here named Ninth Biennial Report.

AS REGARDS ENFORCEMENT OF SOME OF THE LABOR LAWS OF CALIFORNIA.

Under the above heading, an article appeared in the Ninth Biennial Report of this Bureau, and it is the purpose here to continue the subject in so far as it relates to the period covered, and the work done, by this Bureau within its purview during the last two years.

THE EIGHT-HOUR LAW.

In the said article in the Ninth Report, it is noted that the State "eight-hour" law of 1899 had not, at that time, been subjected to judicial test. Since then, however, several cases have been decided, respectively, in the Superior Courts of some of the counties of the State, and in all of such cases the said courts seem to have held, following the decision of the Supreme Court of the State in what is known as the Kubeck case in Los Angeles, that the said law of 1899 is invalid and unconstitutional. Thus it was held so to be by Judge Hall of the Superior Court of Alameda County, in a case wherein an injunction was sought to restrain the county officials of that county from paying, to a contractor who had, on county work, required and permitted his employés to work more than eight hours per day, money earned and otherwise due under the said contract.

And again, in a similar case, by Judge Sloss of the Superior Court of the City and County of San Francisco. And again by Judge Sloss in ruling on a demurrer in an action brought by a contractor against the Regents of the State University for moneys due for work performed under contract for the said university; the said contractor, on said work, having required and permitted his employés to work more than eight hours per day.

The Legislature of the State, at its last session (1901) amended the law here in question, and thereby materially altered the legal aspect of some of its provisions. The law as thus amended has now been in effect for a considerable time, but it is not believed that the amendments named have yet been passed upon judicially.

In many cases communications have been received by the Bureau, and information and advice asked, in regard to work being done under contract in various respective places. In all such cases, such information and advice as were possible, under the circumstances, have been

given, and it has been many times suggested that some representative case of violation of this amended law should, upon the first opportunity, be carried on appeal to the Supreme Court of this State and there carefully presented, with view to having decided by that tribunal the question of the validity of such legislation in this State.

As regards the Kubeck case before mentioned, it arose under a city ordinance, which made it simply a penal offense to require or permit persons employed by contractors, or otherwise, upon the public works of the city of Los Angeles, to work more than eight hours per calendar day.

The amended law here in question does not impose a penal penalty upon the contractor, but attempts to make him civilly liable for violation of the law, and hence it is believed that the Kubeck case, as presented, is not squarely in point.

Again, the decisions of our Superior Courts (and even the decision of our Supreme Court, in the Kubeck case) are directly at variance with the decisions of the United States courts, as well as those of the higher courts of several of the States on the same class of legislation.

Altogether it is believed that an effort should be made to have the question settled by the highest possible judicial authority without unnecessary delay.

Mention may here be consistently made, also, of the Federal, or United States, "eight-hour" law, as it applies to all laborers, workmen, and mechanics employed upon the public works of the United States.

In the article in our Ninth Biennial Report, herein referred to, mention is made of the arrest of several contractors, on such United States public works, for violation of the said Federal law. In one of said cases, namely, United States vs. Clark & Henry, defendants pleaded guilty and paid a fine of \$200. In another, that is to say, United States vs. Atlantic, Gulf, and Pacific Dredging Company, et al., the case went to trial and defendants were, on June 15, 1900, convicted and fined \$150. They took an appeal to the United States Circuit Court of Appeals, which appeal was dismissed July 19, 1900, without prejudice, and the fine in question was collected by the United States District Attorney about April 15, 1902.

In the other case, that of the United States vs. Darby Laydon, defendant went to trial; on December 11, 1900, he was convicted and fined \$200. He took an appeal to the United States Circuit Court of Appeals, and said court dismissed said appeal May 13, 1901. The records show that the United States District Attorney's office caused said fine to be collected about April 15, 1902.

Some time prior to December, 1901, complaint was made to the Bureau of the further violation of this same Federal "eight-hour" law by the abovesaid Atlantic, Gulf, and Pacific Dredging Company, et al.,

in doing work under a Government contract in Alameda County. This Bureau took up the matter, and securing the evidence necessary, caused complaint to be made to the Federal authorities, with the result that the defendants were arrested and held over for trial before the United States District Court, and their cases are pending in said court. Communications have been sent from this Bureau to the United States District Attorney's office, urging careful attention upon the part of that office to the said case, and the District Attorney has promised to give the same.

About January, 1902, complaint was made to the Bureau that the Atlantic, Gulf, and Pacific Dredging Company, hereinbefore mentioned, was violating the provisions of this same Federal "eight-hour" law in doing work, under contract with the United States Government, upon a dry dock being built for said Government at the Mare Island Navy Yard, in California; said violation consisting in requiring and permitting workmen to work upon said dry dock more than eight hours per calendar day. The agents of this Bureau, seeking to investigate the facts regarding the violation alleged, were refused admission to the Navy Yard by Admiral Miller, the commandant thereof. The Bureau thereupon took the matter up with the Secretary of the Navy, and asked permission for its agents to enter the said Navy Yard for the purpose of ascertaining the facts named. In thus seeking to obtain the said permission, the Bureau sought to enlist the assistance of the several Senators and Congressmen of the State, and it is to be said that in most cases that assistance was promptly and cheerfully rendered. In due course the Secretary of the Navy made an order, and advised this Bureau of the same, directing the commandant of the Navy Yard at Mare Island to permit the agents of the Bureau to enter the said yard, at all times between sunrise and sunset, on any day. However, meanwhile, owing, it was said, to some disagreement between the contracting parties and the United States authorities, work on the dry dock was discontinued, and the whole matter has for this reason since rested in abeyance.

About May 10, 1901, an official communication was received, through the medium of a duly authorized committee, from the International Brotherhood of Electrical Workers, Local No. 151 of San Francisco, making complaint, in substance: That certain electrical linemen and repairers, in the employ of the Electrical Department of the City and County of San Francisco, were being required and permitted to work, while in said employ, more than eight hours per calendar day, in contravention of the provisions of the charter of said city and county.

The matter was at once taken up by the Bureau with the Joint Board of Fire and Police Commissioners of San Francisco, with the request that the subject-matter of the complaint be investigated, and that in case non-compliance with the provisions of the charter was established as

alleged, the working rules and regulations of the electrical department of the City and County be so modified as to bring the work of all employés of the department within the provisions of the charter.

The Joint Board, consisting of Messrs. Newhall, Watt, Hecht, Howell, Wallace, Mahoney, and Grady, and later including Commissioners Hutton and Parry, cheerfully took up the subject of the complaint and gave the matter careful and earnest attention, with the result that after considerable delay, some of which was unavoidable, it was found that the provisions of the charter were being violated as alleged, in the employment of the electricians in question, and, duly authorized by vote of the Joint Board, its president, George A. Newhall, gave peremptory orders that the provisions of the charter in question be thereafter faithfully observed as regards the employés of the said electrical department.

LAW AS TO SANITARY CONDITION OF WORKSHOPS, ETC.

In the same article herein referred to, mention is again made of efforts, on the part of the Bureau, to enforce compliance with the provisions of a law of the State of California which sought to provide for the sanitary condition of factories and workshops, by investing the Commissioner of this Bureau with authority to ascertain when the inhalation of dust and filaments in such factories might be prevented by the use of mechanical appliances, and to order such appliances to be used when such inhalation would be prevented thereby. Many of the factories in question complied with the suggestion from the Bureau, and installed and used appliances such as herein referred to.

In a few cases suggestions such as named were ignored, and hence about December, 1900, Messrs. Schaezlein and Burrige, of Hardy Place, San Francisco, were arrested upon a complaint of the Bureau, and charged with having committed a misdemeanor in refusing to install, in their metal-polishing shop, at said place, in compliance with the provisions of the law in question, a suction exhauster designed to purify the atmosphere in said shop. They were, in due time, convicted on said charge in the Police Court of the City and County of San Francisco, and sentenced to pay a fine of \$25. They took an appeal to the Superior Court of the said city and county, which court affirmed the decision of the lower court. They thereupon took the case to the Supreme Court of the State of California on writ of certiorari, with result that, after many months' delay, the said Supreme Court, by its decision in the case, held the law in question to be invalid and unconstitutional, as containing a delegation of legislative power to the Commissioner of this Bureau to enact general laws by the provisions of which persons were made to be guilty of criminal offenses. The

language objected to in this regard by the said court in the said law was as follows:

If in any factory or workshop, any process of work is carried on by which dust, filaments, or injurious gases are generated or produced, that are liable to be inhaled by the persons employed therein, and it appears to the Commissioner of the Bureau of Labor Statistics that such inhalation could, to a great extent, be prevented by the use of some mechanical contrivance, he shall direct that such contrivance shall be provided, and within a reasonable time it shall be so provided and used.

The vice in this language, as found by the court, is the fact that by its terms it makes no rule of conduct for the people to follow, but leaves it to the Commissioner to make the rule as to when dust, etc., is liable to be inhaled, when such inhalation can be prevented, and as to what appliance shall be used.

Now, however, whether the above language of the statute contains a delegation of legislative power to the Commissioner as named, or whether it merely invests him with authority to determine the existence of facts upon which the action of the law depends, which latter can in proper cases validly be done, a seeming incongruity appears as between the decision of the Supreme Court in the case in point, and its decision in the case of *Taylor vs. Hughes*, 62 Cal., which case arose and is as follows:

Section 637 of the Penal Code of this State is in language as follows:

"Every owner of a dam or other obstruction in any running water in this State, who, having been ordered and notified by the Fish Commissioners to construct a fish-ladder on, or repair a fish-ladder already constructed on, such dam or other obstruction, according to the plans of the Fish Commissioners, fails to construct or repair such fish-ladder within thirty days after such notice, is guilty of a misdemeanor, and upon conviction shall pay a fine of not less than fifty dollars," etc.

It will be observed that by the next foregoing language no rule of conduct is made by the law itself for the people to follow; but it is left to the Fish Commissioners to make the rule as to when fish-ladders shall be used or repaired, and as to the kind and dimensions of such ladders, etc.

The case of *Taylor vs. Hughes*, *supra*, was one wherein, some years ago, the owner of a dam such as is contemplated by Section 637 had refused to construct a ladder in connection therewith, according to the orders and plans of the Fish Commissioners, and was thereupon arrested, charged with misdemeanor for thus refusing, tried, convicted, and fined in a Justice's Court. The defendant appealed from the judgment of the Justice's Court to the Superior Court, and on such appeal the judgment was affirmed. Defendant then took the matter to the Supreme Court on a writ of certiorari, and the latter court summarily dismissed the writ, with the simple observation that the case disclosed no ground for interference under the writ, and thus allowed the judgment of the Justice's Court to stand and to be enforced.

The entire similarity of fact, law, and procedure in these two cases can but be noted.

In the case of Schaezlein and Burrige, the Supreme Court, noting the case of Taylor vs. Hughes, distinguished as follows: that in the latter case the defendant was occupying property belonging to the State, to wit, the running water, and said that there existed marked difference as to the extent to which regulation of the use of property located on property of the State might go, as compared with the regulation of property located on merely private property.

It should be readily conceded, (1) That legislative power to enact general laws can not be delegated to any person, commission, or individual; (2) That property located upon property of the State is subject to regulation in greater degree than is property located on merely private premises.

But, the real question here is not as to the *extent* of regulation, but as to the *method* of regulation, and there following comes the question, to wit: "Is there constitutional or other sanction in this State, permitting the delegation, to a commission, of legislative power to make a general law which shall govern persons owning property or occupying property, located on State property or premises, and which shall make the rule determining when such persons are guilty of crime, while similar sanction is lacking in connection with the ownership of property owned or occupied on private property or premises?"

However, the Legislature of this State, at its last session, so amended the sanitary law in question as to eliminate this objection as to delegation of legislative power, and the matter of causing compliance with said law as amended will, in due course, receive the careful attention of the Bureau.

EMPLOYMENT AGENCIES.

Noting what is said on page 74 of the Ninth Biennial Report of this Bureau in relation to illegal practices in connection with the "Commercial Clerks' Information Bureau," conducted by a Mr. S. Morris, and supplementary thereto be it said that complaints continued to reach this Bureau from time to time relative to the illegal collection of fees by said Mr. Morris, with result that about February, 1901, complaint was made to the Police Commission of the City and County of San Francisco, regarding the said "Commercial Clerks' Bureau" and its proprietor, accompanied by request that the license of the said Morris as an employment agent be revoked by the Commission. The Commission thereupon summoned Mr. Morris to appear before it and show cause why his said license should not be revoked. Mr. Morris duly appeared and, upon examination, admitted making the illegal collections referred to, but promised the Commission that he would thereafter cease making such collections,

and would, in all ways, conform to the law. Upon this promise the Commission allowed the matter to rest for a probationary period of two weeks. Within that interim this Bureau, through the medium of secret agents, kept track of the actions of Mr. Morris, and secured plain evidence that he was continuing, during said probationary time, the practice of illegally collecting fees from applicants for employment. At the end of the said probationary period Mr. Morris again appeared before the Police Commission, and was confronted with the evidence of his conduct during the said period as hereinbefore named. Upon this showing the Police Commission summarily revoked his license as an employment agent, with result that he was driven from the business.

MONTHLY PAY-DAY LAW.

Complaints continue to be numerous in regard to the unfair advantage attempted to be taken, by some employers, of the provisions of the monthly pay-day law of this State. That law, in its inception, was designed to protect the wage-earner from the practice, indulged in by some employers, of not paying their employés for months at a time. Since the enactment of the law, many employers, generally contractors, who employ large numbers of men as common laborers, have established what they term a monthly pay-day. This pay-day is found usually to be about the 20th of any given month, and on that day the employer purports to pay only the wages earned by the employé during the calendar month prior. It is a well-known rule, in the construction of a contract, that no express provision is inserted in the contract of hiring as to the time during which the contract to labor shall continue. The law presumes that the parties have adopted, as to the indicia of such length of time, the time by which the rate of compensation is measured; thus, in the absence of express provision, a party agreeing to work for \$2 per day is presumed to have agreed to work for one full day, and at the end of that time his contract is completed, and he is at liberty to refuse, without notice, to work longer, if he so chooses; or if the agreement is to work for a monthly rate of wages, the legal presumption is, in the absence of express provision, that the party has agreed to work for one full month, etc. In almost every case, common labor is employed by the day, and under this monthly pay-day rule spoken of it very often happens, as was said in the Ninth Report of this Bureau, that a man may go to work on the first day of a given month and work a few days and quit, as he may rightfully do, or he is discharged. Seeking payment of the money he has earned, he is told that he must either wait a matter perhaps of four to six weeks until the regular pay-day (on the 20th of the next month) arrives, or he must agree to a discount, in favor of the employer, of ten per cent of

the money which he has earned. It would seem that this condition should have the attention of our Legislature, with view to enacting a law, if possible, that would provide a remedy.

NON-PAYMENT OF WAGES.

Noting what is said on pages 71 and 72 of the Ninth Biennial Report of this Bureau in relation to complaints made by wage-workers against employers, in regard to refusal to pay wages claimed to have been earned and to be justly due, and to the practice of this Bureau in seeking to effect just settlements in such cases, it is to be said that since the date of the publication of the said Ninth Report some hundreds of such complaints have been filed with the Bureau, involving amounts ranging from a dollar or two to one hundred, and aggregating some thousands.

The Bureau has continued its abovesaid practice in connection with such complaints, and with a fair degree of success, and through such medium many hundreds of dollars in the aggregate, justly earned, have been secured and paid to claimants who would otherwise, in all probability, have wholly lost the same.

LAW RELATIVE TO EMPLOYMENT OF MINORS.

Statutes of California, 1889, page 4 (An Act to regulate the hours of labor and employment of minors), reads as follows:

SECTION 1. No minor under the age of eighteen shall be employed in laboring in any manufacturing, mechanical, or mercantile establishment, or other place of labor, more than ten hours in one day, except when it is necessary to make repairs to prevent the interruption of the ordinary running of machinery, or when a different apportionment of the hours of labor is made for the sole purpose of making a shorter day's work for one day of the week; and in no case shall the hours of labor exceed sixty in a week.

SEC. 2. No child under ten years of age shall be employed in any factory, workshop, or mercantile establishment; and every minor under sixteen years of age when so employed shall be recorded by name in a book kept for the purpose, and a certificate (duly verified by his or her parent or guardian, or if the child shall have no parent or guardian, then by such minor) shall be kept on file by the employer, which book and which certificate shall be produced by him or his agent at the requirement of the Commissioner of the Bureau of Labor Statistics.

SEC. 3. Every person or corporation employing minors under sixteen years of age, in any manufacturing establishment, shall post and keep posted, in a conspicuous place in every room where such help is employed, a printed notice stating the number of hours per day for each day of the week required of such persons, and in every room where minors under sixteen years of age are employed, a list of their names with their ages.

SEC. 4. Any person or corporation that knowingly violates or omits to comply with any of the foregoing provisions of this Act, or who knowingly employs, or suffers or permits any minor to be employed, in violation thereof, shall, on conviction, be punished by a fine of not less than fifty nor more than two hundred dollars for each and every offense.

SEC. 5. It shall be the duty of the Commissioner of the Bureau of Labor Statistics to enforce the provisions of this Act.

SEC. 6. This Act shall take effect and be in force from and after its passage.

This law was in existence in this State for something like ten years, during which it is not of record that it received any particular attention from any source; in fact, when recently, in the City and County of San Francisco, the law in its amended form was brought to the attention of employers, fully ninety per cent of them declared that they had never before heard of it and were not aware that such a law was in existence.

Our Legislature, at its last session (1901) passed an Act (Statutes of California, 1901, page 631) intended to be a substitute for the Act here next before referred to, which substitute reads as follows:

SECTION 1. No minor under the age of eighteen shall be employed in laboring in any manufacturing, mechanical, or mercantile establishment, or other place of labor, more than nine hours in one day, except when it is necessary to make repairs to prevent the interruption of the ordinary running of machinery, or when a different apportionment of the hours of labor is made for the sole purpose of making a shorter day's work for one day of the week; and in no case shall the hours of labor exceed fifty-four in a week.

SEC. 2. No child under twelve years of age shall be employed in any factory, workshop, or mercantile establishment, and every minor under sixteen years of age when so employed shall be recorded by name in a book kept for that purpose, and a certificate (duly verified by his or her parent or guardian, or if the minor shall have no parent or guardian, then by such minor, stating age and place of birth of such minor) shall be kept on file by the employer, which book and which certificate shall be produced by him or his agent at the requirement of the Commissioner of the Bureau of Labor Statistics.

SEC. 3. Every person or corporation employing minors under sixteen years of age in any manufacturing establishment, shall post and keep posted, in a conspicuous place in every room where such help is employed, a printed notice stating the number of hours per day for each day of the week required of such persons, and in every room where minors under sixteen years of age are employed, a list of their names with their ages.

SEC. 4. Any person or corporation that knowingly violates or omits to comply with any of the foregoing provisions of this Act, or who knowingly employs, or suffers or permits any minor to be employed, in violation thereof, shall, on conviction, be punished by a fine of not less than fifty nor more than two hundred dollars, or by imprisonment of not more than sixty days, or by both such fine and imprisonment, for each and every offense.

SEC. 5. This Act shall take effect sixty days after its passage.

The enforcement of a law of this kind over the length and breadth of the State is an undertaking of great magnitude, and one which can never be well prosecuted on such broad lines by this Bureau, with its present limited force and appropriation.

It is to be remembered that, in most cases, the work of the Bureau will be obstructed, not assisted, in such regard, and not by employers alone, but by employes as well; for example, when it comes to inquiry of minors as to their ages, there seems often great inclination to conceal, if possible, the true age, and where the child is young, to make itself appear old. While recognizing all this, this Bureau has recognized, as well, that the enforcement of this law was something greatly to be desired in the interests of the children and the youth of the State, and

hence, with determination to do all possible with the means at hand, and being, under the circumstances, best able to work in the vicinity of the headquarters of the Bureau, there was begun, early in the year 1901, a careful canvass of the City and County of San Francisco, with view:

(1) To determine the names and vocations in which wage-workers in said city and county principally find employment;

(2) The number of factories, mercantile houses, or establishments in each of said respective vocations;

(3) The number of adult males employed in each of said vocations;

(4) The number of adult females employed in each of said vocations;

(5) The number of minors, male and female, under twelve years of age, employed in each of said vocations;

(6) The number of minors, male and female, under sixteen and over twelve years of age, employed in each of said vocations:

(7) The number of minors, male and female, under eighteen and over sixteen years of age, employed in each of said vocations;

(8) The number of Chinese employed in each of said vocations;

(9) The number of Japanese employed in each of said vocations.

As regards Chinese it should be here noted that those referred to include only such as are employed by white employers; that is to say, they do not include those establishments in Chinatown which are owned, managed, and manned, exclusively, by and in the interests of Chinese.

The work of canvassing the City and County of San Francisco, as before said, was prosecuted as vigorously as ways and means permitted, and was completed within about eleven months, and thereby data were secured from which has been compiled the following table, which is self-explanatory:

Kind of Establishment.	Number of Establishments	Adults Employed.		Minors Under 12.		Minors Under 16 and Over 12.		Minors Under 18 and Over 16.		Chinese Employed.	Japanese Employed.
		M.	F.	M.	F.	M.	F.	M.	F.		
Agents	25	86	36			3		2			
Auction houses	11	30									
Bags	11	137	252			7	55	9	10		
Bakeries	184	910	411			5	8	24	20		
Bamboo works	11	16	2								21
Barbers	177	630	1					1			3
Basket-makers	5	51	8					2			
Baths	6	35	13								
Bazaars	50	43	20			1		5		53	36
Belting works	4	37	4			1					
Bicycle-sellers, etc.	20	115	11			3		10			
Bookstores	9	50	38					5	3		
Bottling works	16	79	1					1			
Breweries	20	497	1			2		4			
Brokers	34	119	17			1		1			
Broom factories	19	152	16			4		17		32	
Butchers	271	1,075	40			50		18			
Cabinet-makers	19	143				2		2			
Candy-makers	99	308	391			4		17	50		
Canned goods factories	20	122	78			1	2	1	9		
Carpenters	39	141						1			
Carpet-cleaners	13	42	7					1	1		
Cemetery work	5	14									
Cigar factories	55	253	199			3	15	3	32	397	
Cigar-box factories	22	697	254			29	29	39	24	45	
Cigar wholesalers	38	260	24			1		4			
Clothing	52	456	181			31	2	21	30		
Coffee and spice mills	58	523	230	1		10		12			12
Commission houses	98	810	55			8	1	27			
Cooper shops	17	270	2			10		17			
Crockery stores	10	215	53			3		31	3		
Dairy produce	48	191	21			2		1			
Dairies, milk	18	149	5			1					
Delicacies	41	59	24			4					
Delivery companies	23	218	2			1					
Drying companies	16	228	2			30	11	17	31	79	3
Dressmakers	142	454	1,333			25	1	31			
Drug stores	206	822	121	1		110	17	35	12		
Drygoods dealers	82	993	911	8		1	1	11	10		
Dyeing and cleaning	37	121	150			6		12	4		
Electric companies	30	309	59			6		12	4		
Employment agencies	15	13	15								4
Engravers	15	328	99			11	6	37	50		
Fish and oysters	41	159	2			4				9	
Floors, inlaid	8	35	1			1		1			
Florists	42	105	17	1		6		4			
Frame factories	26	178	14			3		15			10
Fruit and vegetables	100	212	5			5				10	
Furniture dealers	80	1,329	124			22		38	1		
Fur companies	19	37	68					4	1		
Gas companies	14	195	12								
Gents' furnishing	67	523	443			17		20	6		2
Glass and glazing	12	561	84	4		128	5	48	50		
Glove factories	20	149	271			7	2	10	16		
Grocers	520	1,051	68			17	1	18			
Grocers, wholesale	21	271	49			1					
Hair and wig stores	19	3	61			2					
Hardware stores	51	424	53			15		12			
Harness shops	31	311	54			2		18	1	6	
Hat factories	40	213	97			11	2	12	8		
Hay and grain	47	161	3			2		1			
Horse markets	6	17									
Horseshoers	74	1									
House cleaners	18	14									50
Household g'ds, 2d h'd	17	95	11			1					
Importers	20	100	14			2		3			
Insurance companies	60	820	165			2		26			
Iron works	209	7,953	117			57		311			

Kind of Establishment.	Number of Establishments.	Adults Employed.		Minors Under 12.		Minors Under 16 and Over 12.		Minors Under 18 and Over 16.		Chinese Employed.	Japanese Employed.
		M.	F.	M.	F.	M.	F.	M.	F.		
Jewelers	83	525	26	1		28		21			
Junk-dealers	15	91									
Laundry companies	212	640	901			2		65	28	786	25
Leather companies	80	1,091	51			11	1	15		2	
Liquor-dealers	84	883	24			1		1			
Loan offices	21	36	1			1					
Lumber companies	42	563	10			3		1			
Malt houses	6	52									
Mills, flour and feed	19	267	45					4	2		
Milliners	91	102	624			13	10	4	17		
Miscellaneous	161	2,336	346	1		44	3	86	8	29	
Music-dealers	27	192	22			7		5			
Newspapers	18	1,144	50			1		23			3
Opticians	14	90	12					16			
Overall factories	5	100	650			8	30	4	40	54	
Paints and oils	38	449	27			2		1			
Paints, paper-hanger	117	601	12			2		10			
Paper dealers, wholes'ers	9	119	16			1		1		10	
Paste companies	13	44	2								
Planing mills	34	773	4			3		13			
Plaster companies	7	32						1			
Plumbers	145	685	15			10		21			
Portrait companies	46	141	141			7	3	4	12		2
Pottery, art	5	80	1					1			
Poultry-dealers	18	86	4								
Powder works	5	26	1					1			
Printers	102	896	262			25	2	33	9		
Railroad offices	14	136	6								
Real estate offices	25	147	25					3			
Restaurants	400	2,367	213			5		18	1	2	26
Roofing companies	8	64				1					
Rubber-stamp co's	20	223	75			5		5			
Safe and lock co's	21	88	4			7		3			
Seed stores	6	46	42			1	6	4	12		
Sewing-machine deal's	16	72	29					2			
Shippers	5	28	5								
Ship smiths	26	302	1					12			
Shirt factories	25	202	1,387			4	1	3	128	14	
Shoe factories	98	648	131	2		20	3	12	8	26	17
Soda water companies	22	157	4					4			
Stables	84	538	2			1		4	1		
Stationery	55	352	104			26		19			1
Stone-cutters, etc.	27	1,061	5			2			1		
Tailors	176	776	406			16	2	10	9	7	14
Tinning shops	17	1,087	272	6	1	91	63	104	82	25	
Tamale factories	5	54	18				3	2	4		
Trunk factories	16	165	34			5	1	12			
Typewriter exchanges	10	66	10			2		6			
Undertakers	33	127	27			2		1	2		
Upholsterers	29	286	38			5		15	2		
Wagon shops	83	406	3			2		3			
Warehouse companies	38	310	38			1		4			
Wood and coal deal'rs	150	470	10					3		1	
Totals	6,479	49,340	12,956	25	1	1,042	288	1,535	742	1,587	229

The foregoing table reveals, that in the course of the canvass hereinbefore named, 6,479 establishments, employing an aggregate of 67,745 persons, were visited by the agents of the Bureau; that of the said number of persons, 53,753 were males and 13,987 were females; that of the said males, 51,156 were adults, that is to say, for the purposes here, above the age of eighteen years, and 2,602 were minors under the age of

eighteen years; that of the said adult males, 49,340 were whites, 1,587 were Chinese, and 229 were Japanese; that of the said females, 12,956 were adults, that is to say, for the purposes here, above the age of eighteen years, and 1,031 were minors under the age of eighteen years; that of the said male minors, 25 were under the age of twelve years; 1,042 were under the age of sixteen and over the age of twelve years; 1,535 were under the age of eighteen and over the age of sixteen years; that of the said female minors, one was under the age of twelve years; 288 were under the age of sixteen years and over the age of twelve years, and 742 were under the age of eighteen years and over the age of sixteen years.

It is to be borne in mind that these figures refer solely to employés in manufacturing and mercantile establishments, and do not refer to persons employed as house servants, nor, in any considerable degree, to those employed in outdoor work.

Making reference to the law hereinbefore cited, which prohibits altogether the employment of minors under twelve years of age, and restricts the number of hours which may be worked by those over twelve and under eighteen years to nine per day or an aggregate of fifty-four hours per week, the investigation here referred to developed that of the 3,633 minors employed, as therein shown, 25 males and 1 female were employed in violation of the law, they being under twelve years of age; that 443 males and 148 females under sixteen years and over twelve years of age were being required and permitted to work more than nine hours per day or an aggregate of more than fifty-four hours per week, in violation of the law; that 676 males and 202 females under eighteen and over sixteen years of age were being required and permitted to work more than nine hours per day, or an aggregate of more than fifty-four hours per week, in violation of the law; and that thus, in the matter of the employment of 1,490 of such minors, the law was being violated. Such being the case, and in an effort to cause compliance with the provisions of the law, in the matter of the said employment of minors, there was addressed to each of the 270 employers in the City and County of San Francisco appearing to be concerned in the aforesaid violation of the law, a copy of the following letter, to wit:

BUREAU OF LABOR STATISTICS, STATE OF CALIFORNIA,
SAN FRANCISCO, May 27, 1902.

-----, *City*:

DEAR SIR: Noting "An Act to regulate the employment, hours of labor, etc., of children, and to prohibit the employment of minors under a certain age," approved March 23, 1901 (Statutes of California, 1901, p. 631), copy of which was delivered to you some weeks since by the agents of this Bureau, and which Act, among other things, provides in substance: That no child under twelve years of age shall be employed in any factory, workshop, or mercantile establishment, and that no minor under the age of eighteen shall be employed in laboring in any manufacturing, mechanical, or mercantile establishment, or other place of labor, more than nine hours in one day, etc., I beg to say:

It is made to appear that there ----- employed in your establishment ----- minors

under the age of twelve years; also that there ----- employed in said establishment ----- minors under the age of eighteen years who, while thus employed, are required and permitted to work more than nine hours per calendar day, not in cases wherein the same is necessary in order to make repairs to prevent the interruption of the ordinary running of machinery in such establishment, and not in cases wherein the sole purpose of thus requiring and permitting said minors to work more than nine hours per day is to make a shorter day's work for one day of the week. And it further appears that the said minors, while thus employed, are required and permitted to work in excess of fifty-four hours per week. Hence, I beg to say:

That this Bureau will cause to be instituted proper proceedings for the prosecution of any violation of the aforesaid Act, which may be brought to its attention after this date, and I therefore trust that you will so modify the arrangements in your establishment as to hereafter cause compliance with the said law.

Yours very truly,

F. V. MEYERS,

Commissioner State Bureau of Labor Statistics.

The sending of copies of the foregoing letter, as abovesaid, was followed, wherever such course seemed necessary, by further communications from the Bureau, or by visits to the respective establishments by agents of the Bureau, with the result that within fairly reasonable time the proprietors of very nearly all of the 270 establishments, above referred to, had so modified their rules and arrangements as to cause full compliance with the law in question, and it is pleasant to note the generally cheerful manner in which these proprietors, as a rule, met the Bureau in this particular regard. In a few instances, it is true, there appeared a disposition to ignore or oppose the law, and in a limited number of cases that disposition apparently still continues. Such cases will have proper attention from the Bureau in due time, and it is also the purpose of the Bureau to extend this line of work to other cities and towns in the State as soon as ways and means permit.

CHILDREN OF WAGE-EARNERS AND "HIGHER EDUCATION."

In the method and civilization of this age, other things being equal, knowledge is the touchstone which opens the gate of success in every walk in life. He in any line of endeavor who is best educated therein is best equipped. He in the industrial world who seeks from amid lesser levels to reach the higher heights, must come, as must those all elsewhere, to the task with educated, thinking brains as well as with working hands; and great is the volume of knowledge which he must have to give him equality with his co-workers in the strife.

Backward, comparatively, only a few years, man came into the world the same as now, unlearned; but in the age when science taught that the earth was flat, the cry from the depths of ignorance to the heights of knowledge was not so far, while in the present time humanity has come to be so wise that its knowledge reaches around and above and beneath the surface of the earth; it searches out the mysteries of the waters, the stars, the elements, and the soil, and fashions them into the vast aggregate of learning which confronts the would-be worker as he stands unlearned at the beginning, and retards and baffles his progress to the "higher heights."

It has been and is said that under the flag of this Republic there is no limit to the possibilities of individual endeavor; that he who has "vim" and intellect, no matter how obscure or unpromising his start in life, will always in the end be found well near the "top"; and the examples of the past and present seem to bear witness that the same is true. Yet in the splendor and vastness of the knowledge of to-day inquiry may well begin whether that very splendor and vastness do not ever more and more place a limit upon the possibilities named.

This refers not to those with meager intellect and energy and without ambition, who are content to drift at all times with the tide which surrounds them, but it refers to those with intellect and energy, supplemented with ambition to rise in such line of endeavor as is by them adopted. As to the former, the question may appropriately be whether effort is wisely spent which seeks to fashion for the higher heights one who is by nature and inclination destined otherwise; but as to the latter—and praise let there be, that under our flag they are many—the question does, or soon will, force itself to hearing, whether, even with

.

the liberal public and private provision for the education of youth, that higher education necessary for their well-being as hereinsaid is yet well within their reach.

Of the youth of our country the children of wage-earners are in vast majority, and the subject here narrows, for the purposes of this article, to where it includes only those children; and still again to where it includes only those children in the State of California.

In seeking answer to the question last above suggested, let us first view the educational system of this State with the provision for its maintenance, and including the private, magnificently endowed institution, the Leland Stanford Junior University. Embraced within the system are:

Public Schools (primary and grammar grades),
High Schools,
Normal Schools,
University of California,
Leland Stanford Junior University.

The value of the property of this educational system is, approximately, as follows:

Public Schools (primary and grammar grades)	\$16,363,568 00
High Schools	2,073,046 00
Normal Schools	699,074 00
University of California	7,250,000 00
Aggregate	\$26,385,688 00
Leland Stanford Junior University	25,000,000 00
Total aggregate	\$51,385,688 00

The annual income of this educational system is derived, and is in amount approximately, as follows:

Public Schools (primary and grammar grades), derived generally from taxation	\$6,663,022 80
High Schools, derived generally from taxation	413,913 48
State Normal Schools, derived generally from taxation	246,813 15
University of California, derived principally from taxation, but to some extent from public and private endowments	400,000 00
Aggregate	\$7,723,749 43
Leland Stanford Junior University, derived from income-bearing endowments	1,000,000 00
Total aggregate	\$8,723,749 43

It is conservative to say, that in this State wage-earners receive from \$1.75 to \$4 per day, according to the class of employment, and hence, for the purpose here, a wage of \$3 per diem, or \$78 per month, is a fair basis of computation.

It is further conservative to assume, for the purpose here, that in the family of the average wage-earner there are three children to be clothed, sheltered, fed, and educated. Hence, keeping in mind the educational

system above observed, let us scrutinize the problem which confronts the wage-earning head of the family who seeks to fulfill the obligation from him due to that family and society, namely, to take those three children, and providing the while for them shelter, food, and clothing, give them that education which, as hereinsaid, is necessary to their fair well-being in life.

Beginning, then, with the first grade of the primary school as to cost, and thence continuing:

First Grade.		
Books.	For One Child.	For Three Children.
State Revised First Reader.....	\$0 20	\$0 60
Slate and pencils.....	15	45
	———— \$0 35	———— \$1 05
Second Grade.		
State Revised Second Reader.....	\$0 35	\$1 05
Writing books.....	20	60
	———— \$0 55	———— \$1 65
Third Grade.		
State Primary Number Lessons.....	\$0 25	\$0 75
State Language Lessons.....	30	90
Writing books.....	20	60
	———— \$0 75	———— \$2 25
Fourth Grade.		
State Revised Third Reader.....	\$0 50	\$1 50
State Elementary Geography.....	60	1 80
Natural Music Primer.....	30	90
Prang's Elementary Course in Art Instruction.....	15	45
Writing books.....	20	60
	———— \$1 75	———— \$5 25
Fifth Grade.		
State Fourth Reader.....	\$0 60	\$1 80
State Advanced Arithmetic.....	50	1 50
State Revised English Grammar.....	55	1 65
Eggleston's 1st Book in American History.....	60	1 80
Writing books.....	20	60
	———— \$2 45	———— \$7 35
	\$5 85	\$17 55

NOTE.—The State Revised Second Reader, the cost of which is included in the cost of the second grade, is carried to and used in the third grade.

The State Language Lessons and State Primary Number Lessons, the cost of which is included in the cost of the third grade, is carried to and used in the fourth grade.

The State Elementary Geography, the Natural Music Primer, and Prang's Elementary Course in Art Instruction, the cost of which is included in the cost of the fourth grade, is carried to and used in the fifth grade.

The children have now been five years at school, at a cost for books, etc., of \$5.85 per child, or \$17.55 in the aggregate for three.

While children of the age of those now here referred to are, in the natural order of things, housed, sheltered, and fed at home in any event, the ordinary cost of their such maintenance should not properly be included in the cost of their education; but in the case of every child attending school there arises always some extra cost in the way of clothing, incidentals etc., which is here thought conservatively approximated at \$2 per month, which, multiplied by the number of school months

ordinarily in a year, and again by the sum of three, gives the annual aggregate cost for three children about the sum of \$48, or for a five-year primary course a cost of \$220, which, added to the here-named cost of \$17.55 for books, makes a total cost of \$237.55 to the parent for the three children during their education in the primary grades here named.

The children are now ready to enter the grammar grade course of the public schools, and the cost continues, to wit:

Books.	Sixth Grade.	
	For One Child.	For Three Children.
State Speller	\$0 30	\$0 90
State Advanced Geography	1 20	3 60
State U. S. History	80	2 40
Natural Second Music Reader	35	1 05
Writing books	20	60
Hawthorne's Daffydowndilly	15	45
	— \$3 00	— \$9 00

Seventh Grade.		
Prang's Elementary Course in Art Instruction..	\$0 20	\$0 60
Writing books	20	60
Hawthorne's Great Stone Face	05	15
Longfellow's Leaflets	30	90
Irving's Essays from Sketch-Book	15	45
	— \$0 90	— \$2 70

Eighth Grade.		
Writing books	\$0 20	\$0 60
Longfellow's Evangeline	15	45
Dickens's Christmas Carols	15	45
Whittier's Snow-Bound	15	45
Bryant's Thanatopsis	05	15
	— \$0 70	— \$2 10
	\$4 60	\$13 80

NOTE.—The State Fourth Reader, State Advanced Arithmetic, State Revised English Grammar, and Prang's Elementary Course in Art Instruction, the cost of which is included in the cost of the fifth grade, are carried to and used in the sixth grade.

The State Fourth Reader, State Advanced Arithmetic, and State Revised English Grammar, the cost of which is included in the cost of the fifth grade, the State Advanced Geography, State United States History, State Speller, and Natural Second Music Reader, the cost of which is included in the cost of the sixth grade, are carried to and used in the seventh grade.

The State Advanced Arithmetic and State Revised English Grammar, the cost of which is included in the cost of the fifth grade, and the State Advanced Geography, State United States History, and Natural Second Music Reader, the cost of which is included in the cost of the sixth grade, and Prang's Elementary Course in Art Instruction and Irving's Essays, the cost of which is included in the cost of the seventh grade, are carried to and used in the eighth grade.

Three more years have been consumed in passing through the grammar grades of the public schools, making eight years of schooling in all.

It is believed to be conservative to assume that the "extra" cost before named has increased since the children quitted the primary grades, from \$2 to \$3 per month per capita, or an aggregate of \$270 for the three children for the three years of the grammar grade course;

thus making the total cost of the said eight years' schooling to be about, to wit:

Cost of books for primary grades	\$17 55
Extra cost of maintenance	220 00
Cost of books for grammar grades	13 80
Extra cost of maintenance	270 00
Total	<u>\$521 35</u>

The children have attained the age of about fifteen years; they are presumed to be now possessed of a fair "common school" education, and the cost of their maintenance is ever increasing. They are no doubt quite well equipped, in an educational way, for the lesser levels, but they are unprepared for, and at a disadvantage in, the strife to reach the higher heights.

In these years the parent has not grown younger and his earning power has not increased. At this parting of the ways he stands perplexed amid divers considerations. On the one hand, the next educational step: the high school, with its three years' course and prospective cost, preparatory for (a) the normal school, or (b) the university. That prospective cost is, to wit:

	Books per Capita.
Scott's Lady of the Lake	\$0 30
Genung's Outline of Rhetoric	1 10
Arden's Julius Cæsar	30
Reed & Kellogg's Higher Lessons in English	75
Whittier's Snow-Bound	15
Lowell's Vision of Sir Launfal	15
Brooks's English Literature	1 10
Gayley's Classic Myths	1 65
Arden's Merchant of Venice	30
Ginn's Irving's Sketch-Book	30
Thackeray's The Newcomes	15
Syle's From Milton to Tennyson	1 10
Thurber's Select Essays of Addison	90
Bradley's Orations and Arguments	1 10
Macaulay's Warren Hastings	15
Milton's Comus	15
Plutarch's Lives	50
Harkness's Complete Latin Grammar	1 25
Tuell & Fowler's First Latin Book	1 10
Allen & Greenough's New Cæsar	1 40
Allen & Greenough's New Cicero	1 55
Daniell's New Latin Prose Composition	1 10
Fisher & Schwatt's Secondary Algebra	1 20
Bowser's Elements of Plane and Spherical Trigonometry and Tables	1 55
Beman & Smith's New Plane and Solid Geometry	1 40
Gage's Principles of Physics	1 50
Storer & Lindsay's Elementary Manual of Chemistry	1 20
Tarr's First Book of Physical Geography	1 25
Meyers's Ancient History	2 00
Channing's History of the United States	1 55
Hinsdale's American Government	1 40
Total	<u>\$29 60</u>

Multiplying this amount (\$29.60) by three, we have at this time, as the prospective cost of books for the high school course, the sum of \$88.80.

In lieu of the high school the student may perhaps attend a course at some other preparatory school, such, for instance, as the "Lick" School, but so doing does not vary in any material way the expense above named.

More serious still, the parent is, as a general rule, at this time, too, confronted with vast increase in the cost of maintenance of the children. Until now, in their educational career, that cost has been comparatively simple, since the children have almost invariably remained under the parental roof; but there are comparatively few of these preparatory schools within the State, and hence the board and lodging of the children are usually to be met as a separate expense during the three years' preparatory course of the preparatory school. A conservative estimate of such cost places it at \$15 per month per individual, or, approximately, \$450 annually, or \$1,350 for the three children for the three years' preparatory school course, together with additional cost of say \$10 annually per capita, or \$90 for three children, for the course, for "materials"; all added to the abovesaid cost of \$88.80 for books, and making a total expense of \$1,528.80 for the course.

Again, the children have at this time reached the age of fifteen years and the parent yet questions: "Is the child's future best served by now placing it as an apprentice at some reliable place or business, or by striving to carry it through the higher educational course?" To learn the trade will require about five years, and the child will then, at the age of twenty years, be well equipped for the lower or intermediate levels of his line of endeavor, but not well armed for strife to reach the higher heights and places. However, during the five years of apprenticeship he will be practically self-sustaining. To carry him through the higher educational course will require in all about seven years, and the expense will be great and ever increasing, but at the end of that time he should be well qualified, so far as mere scholastic training can qualify, for progress to the higher places. (And here query: The youth at twenty, with trade well learned, but without the higher education, or at twenty-two with the higher education, but without the trade; which is better?)

Let it be assumed, however, that the parent, at the aforesaid parting of the ways, eventually decides in favor of the higher education for his children, but that three years later, at the meantime cost to him as before approximated, they reach the next educational step, where (having meanwhile attained the age of eighteen years) they may turn to the State Normal Schools to receive a two years' course of training to

become teachers, at an approximate aggregate expense to the parent for the two years' course of:

Board and lodging	\$900 00
Clothing	120 00
Books	30 00
Total	<u>\$1,050 00</u>

Making an aggregate cost to the parent, for the education of his children from the beginning, of, approximately:

Public Schools (primary and grammar grades)	\$521 35
High Schools	1,528 80
Normal Schools	1,050 00
Total	<u>\$3,100 15</u>

and concluding the parents' educational obligation to them; or, viewing the fact that the field of employment at teaching is not wide, and the possibilities thereof but limited, they may turn to the university course of four years, with cost (either at the University of California or the Leland Stanford Junior University) approximately (for three children), to wit:

Board and lodging	\$2,100 00
Books and stationery	300 00
Clothing	450 00
Laboratory fees	225 00
Total	<u>\$3,075 00</u>

These figures may well appall the average wage-earner, and beyond doubt they in most cases present an insurmountable obstacle to the higher education of his children. That the magnitude of the problem here presented to him is not exaggerated is, it is believed, demonstrated by scrutiny of the statistics of comparative attendance in the respective grades of the schools here in question.

In passing, be it noted that the cost of attendance at the higher educational institutions of California does not materially differ from the cost of attendance at similar institutions in other States.

Be it borne in mind, again, that the parent here taken as an example earns but about \$78 per month (or \$900 per year) under the most favorable conditions, and at the last here-named period in his child's educational career he, as a rule, after many years of toil with little opportunity to save, is verging on or is beyond the medium of life, and his earning capacity is ever more and more lessening.

It may be said that if he can not give to all of his children the higher education, he may be able to give it to some; which may be true in some (but not all) cases. But then is left unanswered the question: "What shall be done that the others may not be left at the disadvantage hereinbefore spoken of?" Is a remedy a remedy which leaves still two thirds of the children of wage-earners barred from the benefit? Of course even one third are not in fact given the benefit. The comparisons here fol-

lowing as to the ratio of children that reach the universities prove that they are not.

The tables of figures and curves here next presented were compiled and prepared by Professor George A. Merrill, Principal of the Lick School of Mechanical Arts and Director of the Wilmerding School of Industrial Arts, San Francisco, California, which is a safe guarantee of their correctness, and this Bureau, has been, by his well-appreciated kindness and courtesy, permitted here to make use of the same.

TABLE No. 1.

Enrollment of Boys and Girls in the Successive Grades of the Public Schools of the Seven Principal Cities of California during the Month of February, 1901.

Grade.	Boys.	Girls.	Ratio of Persistence Girls to Boys.
First	7,792 100	6,879 100	1
Second	5,935 76	5,441 79.1	1.04
Third	5,589 71.7	5,526 81.1	1.13
Fourth	4,897 61.5	5,094 73.4	1.19
Fifth	4,160 53.4	4,509 65.5	1.23
Sixth	3,519 45.2	3,974 57.8	1.28
Seventh	2,148 27.6	3,234 47.5	1.72
Eighth	1,543 19.8	2,239 32.5	1.64
Ninth	1,141 14.7	1,769 25.7	2.47
Tenth	659 8.5	1,084 15.8	1.86
Eleventh	420 5.4	676 9.8	1.82
Twelfth	281 3.6	612 8.9	2.47
	38,084	41,037	

Table No. 1 is based upon the attendance data of the various grades of the primary, grammar, and high school courses in the month of February, 1901, in the public schools of the seven principal cities of the State of California, to wit: San Francisco, Oakland, Sacramento, Stockton, San José, Los Angeles, and San Diego; and shows:

(1) The number of male pupils enrolled in the several said grades at said time.

(2) The number of female pupils enrolled in the several said grades at said time.

(3) Taking 100 as the standard as representing the enrollment in the first grade, the ratio in which the number of pupils enrolled diminishes as advance was made from the said first grade to the successive higher grades referred to.

(4) The difference in the number of female pupils and students who, starting with the first grade mentioned, reach the higher successive grades named, as compared with the number of male pupils who, thus starting, reach the said successive grades.

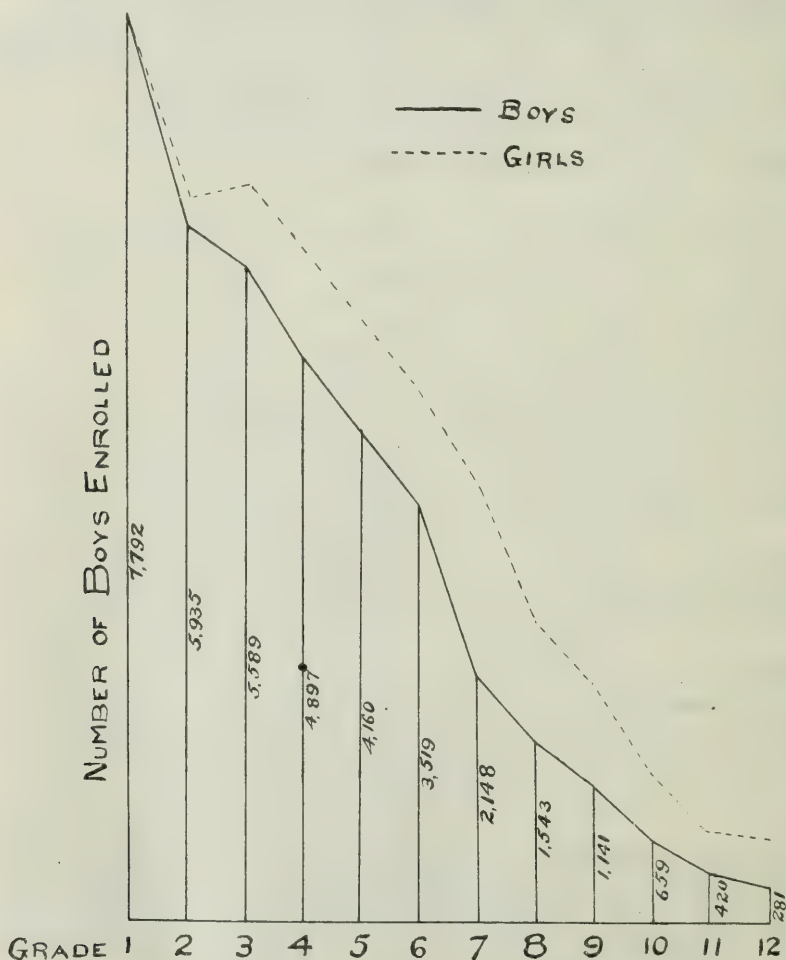


Table No. 2 graphically illustrates by its comparative lines and curves the showing made in Table No. 1.

TABLE No. 3.

Comparative Enrollments for Intervals of Six or Eight Years, Showing that a Comparison of the Present Eighth Grade with the Present First Grade is about the Same as a Comparison of the Present Eighth Grade with the First Grade of Eight Years Ago, from which the Present Eighth Grade Class was Derived.

Grade.	STOCKTON.		SAN JOSÉ.	
	Feb., 1895.	Feb., 1901.	Feb., 1893.	Feb., 1901.
First	394	392	523	536
Second	283	345	352	447
Third	312	362	367	505
Fourth	300	300	341	369
Fifth	331	295	316	372
Sixth	259	223	245	321
Seventh	167	202	227	267
Eighth	125	127	167	235
Ninth	108	100	190	203
Tenth	84	60	62	120
Eleventh	61	37	26	87
Twelfth	35	37	-----	37
Totals	2,459	2,480	2,806	3,499

Lest it be said that the figures given in Table No. 1 represent only the pupils and students concurrently enrolled in the respective grades named in February, 1901, while the pupils in the said twelfth grade at that time must, in the natural order of things, have entered the first grade some ten or twelve years ago; that the number of pupils then entering the first grade may have been much less than the number entering the first grade in 1901, and that hence the percentages given as to comparative enrollment as between the several grades may be inaccurate, Table No. 3 is here inserted.

The last said table gives the number of pupils enrolled in the various grades hereinbefore named in the cities of Stockton and San José in the years 1893 and 1895, respectively, as compared with the number in the same grades and cities in the year 1901; and the comparison reveals that in the earlier years named practically the same number of pupils were enrolled in the first grade of the primary courses as were enrolled in the same grade in the year 1901, and proves the soundness of the basis of the percentages here given.

It is not believed that in the natural order of things there is a great difference in the ratio of enrollments at any given period as between the schools of the cities last-named (Stockton and San José) and the other principal cities of the State, and that hence, for the purpose here required, it is safe to assume that the enrollment shown in Table No. 1 as the enrollment in the first grade in February, 1901, is approximately the same as was in fact the enrollment in the same first grade ten or twelve years before, from which enrollment were derived the students who appear in the twelfth grade in said Table No. 1.

A close study of these tables is very interesting. Thus, by Table No. 1 it appears that in the month of February, 1901, there were in the twelve grades (including the primary, grammar, and high school grades) of the hereinbefore said seven cities, collectively, 79,121 pupils or students; of which number, 14,671, or about 18 per cent, were in the first year or grade of the primary course. In other words, 14,671 pupils in that month took the first or entering step upon the educational path which should, in the rightful order of things, end only in the "higher" education herein referred to. Transposing these figures in the light of Table No. 3, and making them appear as representing the enrollment in the said first grade of the year 1889, we make further reference to Table No. 1 and show as follows (passing intermediate grades):

(1) That of the 14,671 pupils entering the first grade of the primary course, only 7,493, or about 51 per cent, reached the sixth grade; that is to say, the first grade of the grammar school course.

(2) That of the said 14,671 pupils entering the first grade of the primary course, only 2,910, or about 19 per cent, reached the ninth grade; that is to say, the first grade of the high school course.

(3) That of the said 14,671 pupils entering the first grade of the primary course, only 893, or about 6 per cent, reached the twelfth grade; that is to say, the last grade of the high school course.

The student in these matters will find much food for thought as regards this state of affairs, and may speculate *ad libitum* in regard to the causes which underlie the condition shown. It may well be believed that monetary are not the sole considerations which cause those responsible for the education of children to permit the lesser attendance as the child grows in years, and yet we can believe that they are in most cases the predominating considerations.

Viewing Table No. 2, and recalling that the average age of the child upon entry into the first grade is six or seven years, while at the period of entering into the sixth grade it is about twelve years, and noting the rapid decrease in attendance shown by the line drawn from the first to the sixth grade, answer to query as to what causes this decrease in attendance is made by the reflection that: (1) The cost of maintaining the child at school during his twelfth year is considerably more than is the cost for such maintenance during his sixth or seventh year; (2) The child at twelve years of age is deemed able in very many cases to work, and thus becomes a source of revenue in the economy of the household, while at the age of six or seven years he is not. And the more the child advances in age the more do these two propositions come to be considered.

Again is to be noted that as between male and female pupils entering the first grade the ratio of the female as compared with the male pupils reaching the twelfth grade is as $2\frac{1}{2}$ to 1. The solution of this, it is

believed, is found again in great degree in the fact that in the families of wage-earners and others of limited means the boys of the family are found available as a source of revenue at an early age in much greater degree than are the girls.

Now, again, enlarging the showing made by Tables Nos. 1, 2, and 3 to include the universities hereinbefore named in the State of California, be it first noted that the approximate collective enrollment of students at the said universities for the year 1900 was in numbers the sum of 4,000. Of the 4,000 students thus enrolled it is conservative to say that 500 of them came to the universities direct from other States or countries; that another 500, in most cases the children of well-to-do parents, came from private schools of lower grade, and that hence but about 3,000 reached the universities through the medium of the public schools hereinbefore named. While accurate data on the point are not immediately at hand, it is again believed to be conservative to say that of the 3,000 named, 900 were enrolled as entering the universities in the first or freshman year, 800 in the second or sophomore year, 700 in the third or junior year, and 600 in the fourth or senior year of the course.

It is fair to assume, also, that the figures and curves in Tables Nos. 1, 2, and 3 quite well apply to the school children and youth of the whole State, and hence, applying them thereto, and noting that in the year 1900 the sum of the average aggregate daily attendance of pupils and students in the public schools of California (including the primary, grammar, and high school courses) was 197,335, we find as follows:

(1) That 35,520 (18 per cent of 197,335) were enrolled in the first grade of the primary course.

(2) That of the said number enrolled, only 18,115, or 51 per cent, reached the sixth grade; that is to say, the first grade of the grammar school course.

(3) That of the number thus enrolled, only 6,749, or 19 per cent, reached the ninth grade; that is to say, the first grade of the high school course.

(4) That of the number thus enrolled, only 2,131, or 6 per cent, reached the twelfth grade; that is to say, the last grade of the high school course.

(5) That of the number thus enrolled, only 900, or about 2.5 per cent, reached the first grade; that is to say, the first year of the university course in the universities herein named.

(6) That of the number thus enrolled, only 800, or about 2.2 per cent, reached the second grade; that is to say, the second year in the said university course.

(7) That of the number thus enrolled, only 700, or about 1.9 per cent, reached the third grade; that is to say, the third year in the said university course.

(8) That of the number thus enrolled, only 600, or about 1.7 per cent, reached the last grade; that is to say, the fourth and last year of the said university course, and thus presumably completed the necessary higher educational course herein referred to.

There seems now, however, a point incidentally to be noticed while forming conclusions in regard to this subject, and which bears out the proposition herein advanced, that the cost of maintenance at the higher educational institutions is in most cases an obstacle which comes between the child of the wage-earner and the higher education, and that is, that a very considerable number of the students enrolled at the said institutions reside in the comparatively close vicinity thereof, and hence are able to live and be maintained at home while taking the university course. Accurate data as to such residence in regard to students at the State University are not immediately at hand at this writing, but it seems fair to presume that the condition in this regard prevailing at the State University will be in some degree the same as that prevailing at the Stanford Junior University, and as to the latter reliable data show that of some 1,047 students enrolled at the university for 1901 and 1902, 454, or, approximately, 44 per cent, were residents of the county of Santa Clara, which is the county in which the said university is located.

The salient point sought to be shown in this article is simply that after all that has been said in regard to the relation which higher education bears to the life, welfare, and success of the youth of our State, in view of all the magnificent appropriations and endowments made with the purpose of making smooth the pathway to the acquirement of that education, the child of the average wage-earner is still, by the consideration of cost, practically barred from the benefit thereof.

But it is said, with any youth of intellect and energy, the will makes the way, and the higher education will be secured; that there are scholarships and fellowships designed to assist those deserving ones who are otherwise financially unable to take the higher educational course; that the energetic youth who really seeks to rise, can find employment whereby he can be self-sustaining during the course. All of which is in some (but in a small) degree true.

Praise to those whose beneficence has endowed those scholarships and fellowships. The good they have done and will do should never be forgotten; and yet those scholarships and fellowships are so few as compared with those who may seek their benefit. They are in aggregate number in this State about 90, as against some 4,000 students in attendance at the universities, and there are many thousands of pupils in attendance in the public schools, and presumably in great majority anxious to take the higher educational course if means wherewith so to do were within their reach.

Again: But few, comparatively, of these scholarships and fellowships purport to be in amount sufficient to alone sustain the student during

his course of study. The majority of them donate but from \$150 to \$200 per annum, while, as shown, the annual per capita expense at the universities approximates nearly \$300.

Further, the award of these fellowships and scholarships is usually made annually, and hence, while a student who has received once such an award generally receives a re-award each year during the four years' course, the matter of such re-award rests at all times in uncertainty.

As to self-support by working while taking the university course, no doubt a small percentage of the students do thus support themselves; and yet a little reflection and a few comparisons and figures will reveal how inadequately the problem of ways and means is thus solved in behalf of the majority.

The universities are usually located in small villages, where the opportunities for employment outside of the universities themselves are at the best few. There are but about 4,000 students in attendance, and yet the testimony is that from this number the applicants for work are usually largely in excess of the opportunities. What, then, the opportunity for the many thousands in the background anxious to take the higher educational course, but lacking the means?

It is shown that the average annual expense per capita of attendance at the universities is about \$300. The ages of students entering the universities range from sixteen to eighteen years. The average youth of similar age, possessed of employment, and devoting his whole time thereto, is seldom paid more than \$25 per month, or \$250 for ten months. How, then, shall the student with the intense mental strain of study to keep up with his class ever upon him, hope to devote to work, the while, sufficient time to be self-supporting?

The Leland Stanford Junior University register for 1900 and 1901, pages 60 and 61, says: "The University curriculum is adapted to those who have the control of their entire time for study. The student who must earn his living, therefore, should expect to take less than the usual amount of university work."

Again: "The committee strongly advise that no student should come to the University without resources sufficient for the expense of one semester. There have been several instances of failure in study and serious ill-health on the part of those who come without resources." (Read between the lines, this is pathetic.)

Still again: "There is a constant demand for men, and especially women, who can do domestic labor of any kind; many earn board and room rent by waiting on table, washing dishes, general housework, etc."

Here digressing a little, an interesting condition connected with this phase of the subject appears.

Many of the students in attendance at the universities are children of parents in affluent or comfortable financial circumstances and are well supplied with means wherewith to dress, amuse, and otherwise care

for themselves. It would appear that there obtains more or less social community of feeling among the students, and that from time to time social functions are given, at which correctness of form in dress, etc., is quite closely observed. In such a case the unfortunate student whose wardrobe does not afford an evening suit, or at least a "tuxedo," is somewhat at disadvantage. In spite of all its democracy, our American spirit ill tolerates subserviency, and the lines of social cast, almost imperceptible, perhaps, are nevertheless prone quickly to form. With the idea of ascertaining if such social lines are ever drawn in our universities between those students who are "working" their way and those who are supported by affluent parents, the writer made inquiry in regard thereto. The consensus of the information secured as to the male students among themselves, so far as regarded their outdoor intercourse, and probably in their class-rooms, was, substantially, that no such lines were drawn. Beyond that, and within the social sphere, distinctions might be made. Very interesting in this connection is an interview with a young lady recently graduated from one of the California universities, quick, intelligent, and intensely loyal to the university and its environment, which she had just quitted, which was about as follows:

Q. Some of the students at the university obtain employment in its vicinity in order to support themselves while taking the course, do they not?

A. Yes.

Q. What is the nature of the work thus secured?

A. Oh, various work. Odd jobs, waiting on table, washing dishes, doing housework, working in kitchen, etc.

Q. I believe that at times little entertainments, or social functions, if you please, are given among the students; is such the case?

A. Yes; I think it is.

Q. From your knowledge and observation, are social distinctions ever made between those who are employed as you say and those who pay their way or whose way is paid for them?

A. I do not think so.

Q. There is free and friendly intercourse at all times between all, regardless of the question of means of support?

A. That is as it always seemed to me. You would see boys who waited on table, on the campus and in the games mingling freely and unreservedly with the students who were paying their way.

Q. Suppose a young lady student, with way paid, and issuing invitations to one of the social functions mentioned, about to be given by herself, would she, in your opinion, be likely to include in her invitation list a student who was "working" her way by waiting on table?

A. (Hesitating.) I do not know. I never heard of just such a case.

Q. Would she be likely to include in such a case a student who was working his way by washing dishes or taking care of horses in a stable?

A. (Brightly.) Oh, as to that, she would probably give the list to her brother or some male friend to make up.

Q. In such a case, in your frank opinion, based upon your own observations and knowledge, would the brother be likely to include, among those invited to his sister's social function, a student who happened to be earning his way in the university by waiting on table, or caring for horses in a stable?

A. (With great hesitation.) No; I hardly think he would.

It can scarcely be otherwise but that the student who is compelled to work his way must feel at times, in more or less degree, the chafing of these social lines, and to the spirit of American youth such things are galling; but if this circumstance be a handicap in the matter of obtaining higher education by way of working a way in the university, it is one of the least. Far more serious is the inability to secure work to do, or the matter of inability to work for support and at the same time endure the mental strain of study necessary to keep even fair pace with the course.

It is believed that all the foregoing establishes quite clearly two propositions, namely:

(1) That under the public educational system of this State, a common school education may be acquired with comparatively little expense, and that the same is quite easily within the reach of the child of the wage-earning mechanic under ordinary circumstances.

It should here be borne in mind, however, that very many unskilled wage-earners do not earn or receive the wage per diem which made the basis of the approximates herein. Very many such wage-earners receive as little as \$1.50 to \$1.75 per day; and to them, especially with numerous family, the question of cost of books (small, comparatively, though it be) for even the common school course is a serious item; and in view thereof, and of the cost of books and materials in the higher educational course, it is suggested that legislation should, in the near future, be enacted requiring the State to provide, free of cost to the pupils and students, the books, the materials, etc., necessary for use in its public educational institutions.

(2) That it is impossible for a great majority of the children of wage-earners to receive that higher education herein spoken of and so generally believed in this age to be necessary to full success in life.

On the question of such necessity, issue is not made. Whether, as to the average child, it were better and more conducive to his after-success in life that he be placed, at the end of his common school course, at employment wherein he may at the age of twenty-one have learned a useful trade or business, is not here made the question.

For the purpose here the oft-proclaimed and usually accepted belief, as herein named, that higher education is the necessary and only path to higher success, is taken to be true; and if it be true, it is manifest that that higher success must come more and more to lie within the reach only of those possessed of wealth in fair degree, and that thus arises danger that there will be fostered an aristocracy of higher knowledge and of higher place, within whose environment the child of the wage-earner can scarce hope ever to enter, and such a condition should ever be foreign to our flag.

A fact patent in connection with the figures and comparisons here

presented is, that although the value of their properties is vast and the amount of their annual incomes enormous, yet the only saving made to the student and the pupil from that value and those incomes, by attendance at the higher public educational institutions of our State, as compared with attendance at private institutions of like kind and degree, is the sum of \$75 to \$100 per annum in the way of tuition fees. This seems to be, in fact, the only saving made; and while, of course, this saving assists in some degree, still it is so small a proportion of the total cost of the university course, that it can but seldom make the difference that divides between ability and inability to take the course, and may perhaps often be but an advantage to those well able in any event to bear the additional expense which its payment would make, without materially increasing the attendance of children of wage-earners at the university.

It is submitted that the attention of educators and legislators should be directed to the matter of ways and means whereby the higher education here in question may be brought more generally within the reach and means of the children of the wage-earning portion of our citizenship, as well as the children of others of limited means.

An important step in this direction would be favorable action on the suggestion hereinbefore made, that the State provide, free of cost to pupil and student, all books and materials used in our public schools and universities. This idea carried into execution would mean increase in the cost of maintenance of such institutions; but that there is here shown wide room for beneficial expansion in the dissemination of higher education will scarcely be disputed, and such cost will be well incurred.

HOURS AND WAGES—1900-1902.

COMPARISON BETWEEN HOURS WORKED PER DIEM BY, AND WAGES PAID PER DIEM TO, WAGE-WORKERS IN THIS STATE IN THE YEAR 1902, AND SUCH HOURS AND WAGES IN THE YEAR 1900.

In an article appearing in the Ninth Biennial Report of this Bureau (page 57), under the caption, "Present Condition of Wage-Earners in California," a table is given in which comparison is made between the rates of wages paid to workers in given vocations in this State, in the year 1900, and those paid to such workers in the years 1896 and 1884, respectively.

Supplementing that comparison, and bringing the same down to date, is given below a table making comparison between the hours worked by, and wages paid per diem to, such workers in this year, 1902, and similar hours and wages in the aforesaid year, 1900.

COMPARISON BETWEEN PREVAILING AVERAGE WAGES AND HOURS OF LABOR IN VARIOUS VOCATIONS IN THE STATE OF CALIFORNIA, AND BETWEEN THE YEAR 1900 AND THE YEAR 1902.

NOTE.—Regarding prevailing wages and hours of labor per diem in various vocations in California in the year 1900, as compared with similar wages and hours in other States, see Ninth Biennial Report of this Bureau, page 57.

Occupation.	Year 1900.			Year 1902.		
	Hours Per Day.	Wages.		Hours Per Day.	Wages.	
		Day.	Month.		Day.	Month.
Bakers	13	\$2 00 ^b	-----	10½	\$2 75	-----
Barbers	12	2 00	-----	12	2 50	-----
Blacksmiths	10	3 25	-----	9½	3 25	-----
Blacksmiths' helpers	10	2 25	-----	9½	2 25	-----
Boilermakers	10	3 50	-----	9½	3 25	-----
Boilermakers' helpers	10	2 25	-----	9½	2 25	-----
Bookbinders	10	3 00	-----	9½	3 00	-----
Boxmakers	10	1 75	-----	9	2 00	-----
Brakemen	-----	-----	-----	11	-----	\$75 00
Brass-finishers	10	3 50	-----	9½	3 25	-----
Brass-molders	-----	-----	-----	9½	3 25	-----
Brewers	9	2 80	-----	8	3 00	-----
Bricklayers	8	5 00	-----	8	5 00	-----
Butchers	14	2 50	-----	12	2 25	-----
Cabinet-makers	9	2 75	-----	8	3 00	-----
Candy-makers	10	2 50	-----	9	3 00	-----

^b Including board.

HOURS AND WAGES—1900-1902.

Occupation.	Year 1900.			Year 1902.		
	Hours Per Day.	Wages.		Hours Per Day.	Wages.	
		Day.	Month.		Day.	Month.
Canmakers.....	10	\$2 50	-----	10	\$2 50	-----
Carpenters.....	8	3 50	-----	8	3 50	-----
Carpet-layers.....	10	3 50	-----	9	3 25	-----
Carriage-trimmers.....	10	2 75	-----	10	2 75	-----
Cement-finishers.....	-----	-----	-----	8	4 00	-----
Cigarbox-makers.....	10	2 00	-----	9	2 50	-----
Cigarmakers.....	8	2 25	-----	8	2 50	-----
Coatmakers.....	12	3 00	-----	9½	3 00	-----
Cooks, male.....	-----	-----	-----	11	-----	\$60 00
Cooks, female.....	-----	-----	-----	11	-----	30 00
Coopers.....	10	2 75	-----	9	2 75	-----
Concrete-workers.....	8	3 00	-----	8	2 50	-----
Conductors, railroad.....	-----	3 75	-----	11	-----	115 00
Conductors, street-car.....	-----	2 25	-----	10	2 50	-----
Coppersmiths.....	10	3 75	-----	9½	3 25	-----
Coremakers.....	-----	-----	-----	9½	3 25	-----
Cutters, cloth.....	10	3 50	-----	9½	5 00	-----
Domestics.....	-----	-----	\$18 00	-----	-----	20 00
Drapers.....	9	3 00	-----	10	3 00	-----
Draughtsmen.....	8	4 50	-----	8	4 00	-----
Dressmakers.....	9	1 50	-----	9	1 50	-----
Drug clerks.....	-----	-----	-----	12	-----	75 00
Drygoods clerks, male.....	10	-----	65 00	10	-----	75 00
Drygoods clerks, female.....	-----	-----	26 00	10	-----	30 00
Electricians.....	8	2 75	-----	8	3 50	-----
Electrotypers.....	10	3 25	-----	8	4 00	-----
Elevator-men.....	11	-----	35 00	11	-----	45 00
Engineers, railroad.....	-----	-----	125 00	11	-----	135 00
Engineers, stationary.....	12	2 50	-----	10	3 50	-----
Express drivers.....	12	2 50	-----	11	2 25	-----
Firemen, railroad.....	-----	-----	75 00	11	-----	80 00
Firemen, stationary.....	12	2 00	-----	12	2 25	-----
Glass-blowers.....	8	4 50	-----	8	6 50	-----
Glove-cutters.....	9½	2 50	-----	9	3 00	-----
Glovemakers, male.....	9½	3 00	-----	9	2 75	-----
Glovemakers, female.....	8	1 25	-----	9	1 25	-----
Grainers.....	8	3 75	-----	8	3 75	-----
Granite cutters and setters.....	8	3 60	-----	8	4 00	-----
Hackmen.....	12	2 00	-----	12	2 00	-----
Harnessmakers, job.....	10	2 25	-----	10	2 75	-----
Harnessmakers, factory.....	10	1 25	-----	10	2 75	-----
Hodcarriers.....	8	3 00	-----	8	3 50	-----
Horseshoers.....	9	2 75	-----	10	3 25	-----
Horseshoers' helpers.....	9	2 00	-----	10	2 25	-----
Ironworkers, construction.....	8	2 75	-----	8	3 50	-----
Ironworkers, ornamental.....	10	2 50	-----	8	3 50	-----
Jewelers.....	10	3 50	-----	10	3 00	-----
Laborers, building.....	8	2 50	-----	8	2 50	-----
Laborers, street.....	9½	1 85	-----	8	2 25	-----
Laborers, railroad.....	10	1 30	-----	10	1 75	-----
Laborers, agricultural.....	11	1 00	-----	12	-----	30 00b
Laborers, mines.....	10	2 00	-----	10	2 25	-----
Lasters, shoe.....	10	1 75	-----	10	2 25	-----
Lathers.....	8	3 00	-----	8	4 00	-----
Laundry workers, male.....	12	2 00	-----	10	2 50	-----
Laundry workers, female.....	12	1 25	-----	10	1 25	-----
Linemen.....	10	2 75	-----	9	3 00	-----
Linotypers.....	9	4 00	-----	8	4 50	-----
Machinists.....	10	3 25	-----	9½	3 25	-----
Machinists' apprentices.....	10	1 00	-----	9½	1 00	-----
Marble cutters.....	9	3 00	-----	9	3 25	-----
Marble letter cutters.....	-----	3 00	-----	9	3 25	-----
Marble polishers.....	9	2 00	-----	9	2 00	-----
Marine engineers, chief.....	-----	-----	137 50	-----	-----	137 00b

b Including board.

HOURS AND WAGES—1900-1902.

Occupation.	Year 1900.			Year 1902.		
	Hours Per Day.	Wages.		Hours Per Day.	Wages.	
		Day.	Month.		Day.	Month.
Marine engineers, first.....			\$100 00			\$100 00 ^b
Marine engineers, second.....			85 00			85 00 ^b
Marine engineers, third.....			75 00			75 00 ^b
Marine engineers, electrical.....			65 00			70 00 ^b
Marine engineers, deck.....			70 00			70 00 ^b
Marine oilers.....			50 00			50 00 ^b
Marine water tenders.....			55 00			55 00 ^b
Marine plumbers.....			60 00			60 00
Marine firemen.....			50 00			50 00
Marine coal passers.....			35 00			35 00
Messenger boys.....	10	\$1 00		10	\$1 00	
Metal-polishers.....				9	2 75	
Milkers.....	14		35 00	11		40 00 ^b
Milliners, trimmers.....	9	2 50		9	2 50	
Miners.....	10	3 25		9	3 00	
Molders.....	10	3 25		9½	3 25	
Orchard men, pruners.....	10	2 00		10	2 00	
Orchard fruit packers.....	11	1 50		10	1 75	
Overalls factory, male cutters.....				9	3 00	
Overalls factory, female operators.....				9	1 50	
Painters.....	8	3 00		8	3 50	
Paperhangers.....	8	3 50		8	4 00	
Paper-rulers.....	8	3 75		8	3 75	
Pantsmakers, males.....	10	2 25		9½	3 00	
Pantsmakers, females.....	10	1 50		9½	1 50	
Patternmakers.....	10	3 50		9	3 50	
Planing-mill hands.....	9	2 50		8	3 00	
Plasterers.....	8	4 00		8	6 00	
Plumbers.....	8	4 00		8	4 00	
Polishers, wood.....	9	2 50		8	3 50	
Pottery men.....	10	3 50		10	3 50	
Pressmen.....	10	3 00		8	3 50	
Printers.....	10	3 00		8	3 50	
Quarrymen.....	10	2 50		10	2 00	
Reporters.....				10	4 00	
Ropemakers, male.....	10	1 70		10	1 75	
Ropemakers, female.....	10	1 25		10	1 25	
Sandstone carvers.....	8	4 75		8	5 00	
Sailmakers.....	9	4 00		9	4 00	
Ship captains.....			175 00			175 00 ^b
Ship calkers.....	9	5 00		9	5 00	
Ship carpenters.....	9	5 00		9	5 00	
Ship joiners.....	9	4 00		9	4 00	
Ship mates.....			65 00			65 00 ^b
Ship riggers.....	9	4 00		9	4 00	
Ship sailors.....			47 50			47 50
Shirt factory, male cutters.....				9	3 00	
Shirt factory, female operators.....				9	1 30	
Shoemakers.....	9	1 75		9½	2 50	
Springmakers.....	9	3 00		9	3 50	
Stablemen.....	14		30 00	14	2 25	
Stairbuilders.....	8	4 00		8	4 00	
Station agents, railroad.....	12		100 00	12		100 00
Stereotypers.....	9	4 00		8	4 00	
Stereotypers' assistants.....	9	2 50		8	2 50	
Stevadores.....	9	2 70		9	3 60	
Street-car men.....	11	2 42		10	2 50	
Street pavers.....	8	4 00		8	4 00	
Street pavers' helpers.....	8	2 00		8	3 00	
Teamsters.....	11	2 25		10	3 00	
Telegraphers, press operators.....	10		90 00	10		90 00
Telegraphers, message operators.....	10		55 00	10		55 00
Telegraphers, female operators.....	10		30 00	10		30 00
Telegraphers, Ass'd Press operators.....	8		120 00	8		120 00

^b Including board.

HOURS AND WAGES—1900-1902.

Occupation.	Year 1900.			Year 1902.		
	Hours Per Day.	Wages.		Hours Per Day.	Wages.	
		Day.	Month.		Day.	Month.
Telegraphers, train dispatchers.....	8	-----	\$140 00	8	-----	\$140 00
Telegraphers, train disp. operators.....	8	-----	90 00	8	-----	90 00
Tobacco strippers, male.....	8	\$1 00	-----	8	\$1 00	-----
Tobacco strippers, female.....	8	1 00	-----	8	1 00	-----
Tile setters.....	8	3 75	-----	8	4 00	-----
Upholsterers.....	9	3 00	-----	8	3 25	-----
Typewriter repairers.....	9	2 50	-----	9	2 50	-----
Typewriter operators, male.....	8	-----	65 00	8	-----	65 00
Typewriter operators, female.....	8	-----	40 00	8	-----	40 00
Wagonmakers.....	10	2 75	-----	10	2 75	-----
Waiters, male.....	-----	-----	-----	10	-----	35 00 ^b
Waiters, female.....	-----	-----	-----	10	-----	30 00 ^b
Watch repairers.....	10	3 00	-----	10	3 00	-----
Window dressers.....	-----	-----	-----	10	-----	150 00
Wood carvers.....	8	3 50	-----	8	4 00	-----
Woolen-mill hands, male.....	11	2 00	-----	10½	2 00	-----
Woolen-mill hands, female.....	11	1 25	-----	10½	1 50	-----
Wool-scourers.....	10	2 00	-----	10	2 00	-----
Wool-sorters, male.....	10	2 10	-----	10	2 10	-----
Wool-sorters, female.....	10	1 00	-----	10	1 00	-----

^b Including board.

The comparison above shows, in many cases, quite decided improvement in the condition of the worker, and in but few cases retrogression.

In the article above cited, and on pages 61 and 62 of the report named, comparison is made between the aggregate of the sums deposited in the savings banks of the State during the respective years enumerated as therein appears, and it is there further remarked that "the savings banks of a State or of a Nation are the workers' depositories, and by the rise and fall of the deposits therein the workers' comparative prosperity can be measured as by a barometer." Enlarging upon that comparison it now appears as follows:

That, as said, during the year 1894 there was deposited in the said banks, \$97,596,712, and was withdrawn therefrom, \$104,155,474, making \$7,658,761 withdrawn in excess of the amount deposited.

During the year 1899 there was deposited in the said banks the sum of \$77,572,588, as against \$71,867,176 withdrawn; there being thus deposited in excess of the amount withdrawn, the sum of \$5,705,411.

During the year 1901 there was deposited in the said banks the aggregate sum of \$118,057,808, as against \$105,505,209 withdrawn; there being thus deposited in excess of the amount withdrawn, the sum of \$12,552,298.

Data are not yet at hand from which can be made close comparison between the amounts deposited as against the amounts withdrawn from these banks during the current year, but such data as are available indicate that for the first eight months of 1902 the aggregate of the sums deposited in said banks averaged, approximately, over \$1,000,000 per month in excess of the withdrawals.

Altogether, as regards its condition, labor, generally, in this State has little cause for complaint as to its progress within the last two years.

LABOR ORGANIZATIONS IN CALIFORNIA.

LABOR UNIONS.

Name of Organization.	Where Located.	Address.
Bakers and Confectioners, No. 24	San Francisco	117 Turk street.
Bakers, No. 106	San Francisco	117 Turk street.
Bakers, No. 37	Los Angeles	438 S. Spring street.
Bakers	Oakland	1015 Clay street.
Bakers and Confectioners, No. 116	San José	72 N. Second street.
Bakers, No. 120	Stockton	1008 E. Flora street.
Bakers	San Diego	723 Fifth street.
Bakers, No. 143	Fresno	1337 K street.
Bakers	Sacramento	1019 J street.
Bakers	Santa Rosa .....	.....
Barbers, No. 148	San Francisco	32 O'Farrell street.
Barbers, No. 317	Bakersfield	1325 Nineteenth street.
Barbers	Los Angeles	106 N. Spring street.
Barbers	Oakland	1015 Clay street.
Barbers, No. 252	Stockton	72 N. Second street.
Barbers	Stockton	114 E. Weber ave.
Barbers, No. 159	Santa Rosa .....	.....
Barbers	San Diego	967 Fifth street.
Barbers, No. 333	Fresno .....	.....
Barbers	San Bernardino .....	.....
Barbers	Eureka .....	.....
Barbers	Sacramento	1019 J street.
Barbers	Vallejo .....	.....
Bartenders, No. 41	San Francisco	101 O'Farrell street.
Bartenders, No. 378	Bakersfield	Maude Hall.
Blacksmiths (Carriage), No. 99	San Francisco	1133 Mission street.
Blacksmiths, No. 168	San Francisco	102 O'Farrell street.
Blacksmiths (Helpers), No. 8922	San Francisco	102 O'Farrell street.
Blacksmiths, No. 183	Bakersfield	1013 Nineteenth street.
Blacksmiths	Sacramento	1019 J street.
Boilermakers and Iron Shipbuilders, No. 148	Vallejo .....	.....
Boilermakers and Iron Shipbuilders, No. 205	San Francisco	Potrero Opera House.
Boilermakers and Iron Shipbuilders, No. 25	San Francisco	102 O'Farrell street.
Boilermakers (Helpers), No. 9052	San Francisco	102 O'Farrell street.
Boilermakers and Iron Shipbuilders	Bakersfield .....	.....
Boilermakers	San Bernardino .....	.....
Bookbinders	San Francisco	102 O'Farrell street.
Bookbinders	Los Angeles	320 W. Fortieth street.
Bookbinders	Sacramento	1019 J street.
Boatbuilders, No. 9072	Vallejo	516 Capitol street.
Boot and Shoe Workers	San Francisco	102 O'Farrell street.
Boot and Shoe Workers	Sacramento	1019 J street.

LABOR UNIONS—Continued.

Name of Organization.	Where Located.	Address.
Bootblacks	Stockton	226 E. Main street.
Bootblacks	Eureka .....	.....
Bootblacks	Sacramento	1019 J street.
Boxmakers, No. 152	San Francisco	Alcazar Building.
Brass Finishers	San Francisco	1133 Mission street.
Brass Workers, No. 67	Los Angeles	508 S. St. Louis street.
Brewery Workers, No. 7	San Francisco	1159 Mission street.
Brewery Workers, No. 5	San Francisco	1159 Mission street.
Brewery Workers, No. 7	Los Angeles	420 Sichel street.
Brewery Workers, No. 7	San José	72 N. Second street.
Brewery Workers	San Diego	27th and N streets.
Brewery Workers, No. 293	Fresno	Y. M. I. Hall.
Brewery Workers	Sacramento	1019 J street.
Beerdrivers, No. 227	San Francisco	1159 Mission street.
Beerdrivers (Branch No. 2)	San Francisco	1159 Mission street.
Beerdrivers	Los Angeles	Buffalo Br. Co.
Beerbottlers, No. 293 (Branch No. 1)	San Francisco	1159 Mission street.
Beerbottlers, No. 9	Los Angeles	438 S. Spring street.
Beerbottlers, No. 293	San José	72 N. Second street.
Beerbottlers	San Diego	Boston ave.
Beerbottlers	Sacramento	1019 J street.
Bridge and Structural Iron Workers	San Francisco	Alcazar Building.
Broommakers, No. 58	San Francisco	1159 Mission street.
Broommakers, No. 53	Los Angeles	1229 E. Ninth street.
Bricklayers	San Francisco	121 Eddy street.
Bricklayers	Oakland	459 Eleventh street.
Bricklayers	Fresno	118 Clark street.
Bricklayers	Sacramento	1019 J street.
Bricklayers, No. 3	Bakersfield	Court House.
Bricklayers	San José	89 Third street.
Butchers	San Francisco	117 Turk street.
Butchers, No. 193	Bakersfield	Court House.
Butchers	Oakland	459 Eleventh street.
Butchers, No. 130	San José	Turn Verein Hall.
Butchers, No. 136	Fresno	Park Market, K street.
Butchers and Meat Cutters, No. 217	Vallejo .....	.....
Butchers	San Diego	1126 First street.
Carpenters, No. 22	San Francisco	927 Mission street.
Carpenters, No. 304	San Francisco	1159 Mission street.
Carpenters, No. 483	San Francisco	915½ Market street.
Carpenters, No. 95	San Francisco	810 Pacific street.
Carpenters, No. 616 (Stairbuilders)	San Francisco	915½ Market street.
Carpenters, No. 423 (Millmen)	San Francisco	927 Mission street.
Carpenters, No. 766 (Millwrights)	San Francisco	927 Mission street.
Carpenters, No. 743	Bakersfield	I. O. O. F. Hall.
Carpenters, No. 426	Los Angeles	431 Ruth street.
Carpenters, No. 332	Los Angeles	1403 Girard street.
Carpenters, No. 710	Los Angeles	Coughran Hall, L'g Beach.
Carpenters, No. 769	Los Angeles	133 Pasadena ave., Pasad'a.
Carpenters and Joiners	Vallejo	733 Maine street.
Carmen (Railway)	Los Angeles	230 N. ave. Twenty.
Carmen (Railway)	San Bernardino .....	.....
Carpenters (Amalgamated)	Los Angeles	333 Brent street.
Carpenters, No. 1140	Los Angeles	San Pedro. [Alameda.
Carpenters	Oakland	Park and Central avenues,
Carpenters	Oakland	1015 Clay street.

LABOR UNIONS—Continued.

Name of Organization.	Where Located.	Address.
Carpenters	Oakland	Luce's Hall, Haywards.
Carpenters (Mill Machine men)	Oakland	459 Eleventh street.
Carpenters, No. 316	San José	89 S. Third street.
Carpenters, No. 262 (Millmen)	San José	89 S. Third street.
Carpenters, No. 668	San José	Palo Alto.
Carpenters, No. 844	San José	Los Gatos.
Carpenters, No. 266	Stockton	Building Trades Hall.
Carpenters, No. 751	Santa Rosa .....	.....
Carpenters	San Diego	3580 First street.
Carpenters, No. 701	Fresno	327 Howard street.
Carpenters	San Bernardino .....	.....
Carpenters	Eureka	1735 Sixth street.
Carpenters	Sacramento	1019 J street.
Carriage Painters, No. 66	San Francisco	1133 Mission street.
Carriage and Wagon Workers, No. 69	San Francisco	117 Turk street.
Carriage and Wagon Workers, No. 65	Los Angeles	1335 E. Eighth street.
Carriage Builders	Sacramento	1019 J street.
Carpet Workers	Oakland	459 Eleventh street.
Carpet Mechanics	San Francisco	7 City Hall square.
Canmakers, No. 249	San Francisco	117 Turk street.
Cement Workers	San Francisco	927 Mission street.
Cement Workers	Los Angeles	503½ W. Sixth street.
Cement Workers	Oakland	459 Eleventh street.
Cement Workers	San José	89 S. Third street.
Cement Workers	Oakland	459 Eleventh street.
Cigarmakers, No. 228	San Francisco	368 Jessie street.
Cigarmakers, No. 469	Bakersfield	1318 Nineteenth street.
Cigarmakers, No. 225	Los Angeles	109 W. First street.
Cigarmakers	Oakland	459 Eleventh street.
Cigarmakers, No. 291	San José	89 S. Third street.
Cigarmakers	San Diego	1039 Fourth street.
Cigarmakers	Sacramento	1019 J street.
Coal Yard and Trestlemen	San Francisco	1133 Mission street.
Cloakmakers, No. 8	San Francisco	121 Eddy street.
Composition Roofers	Los Angeles	471 Commercial street.
Cooks' Alliance	San Francisco	39½ Fourth street.
Cooks' Helpers	San Francisco	927 Market street.
Cooks and Stewards (Marine)	San Francisco	44 East street.
Cooks and Waiters' League	Bakersfield	Court House.
Cooks, No. 228	Los Angeles	829 Rosabelle street.
Cooks and Waiters	Oakland	459 Eleventh street.
Cooks and Waiters	San José	72 N. Second street.
Cooks and Waiters, No. 220	Eureka .....	.....
Cooks (Hotel and Restaur't Employés)	Sacramento	1019 J street.
Coopers, No. 131 (Machine)	San Francisco	1133 Mission street.
Coopers, No. 65	San Francisco	121 Eddy street.
Coopers	Los Angeles	510 E. Fourth street.
Coppersmiths	San Francisco	117 Turk street.
Coremakers, No. 68	San Francisco	1133 Mission street.
Conductors (Order of Railway), No. 115	San Francisco	317 Turk street.
Conductors (Order of Railway), No. 364	Oakland	1145 E. Nineteenth street.
Conductors (Order of Railway), No. 195	Sacramento	1031 E street.
Conductors (Order of Railway), No. 111	Los Angeles	Box 935.
Conductors (Order of Railway), No. 282	Needles	Box 19.
Derrickmen and Engineers	San Francisco	1133 Mission street.
Drug Clerks, No. 472	San Francisco	31 Second street.

LABOR UNIONS—Continued.

Name of Organization.	Where Located.	Address.
Drug Clerks	Sacramento	1019 J street.
Electrical Workers, No. 6	San Francisco	Alcazar Building.
Electrical Workers, No. 298	San Francisco	921 Market street.
Electrical Workers, No. 283	San Francisco	117 Turk street.
Electrical Workers, No. 121	San Francisco	102 O'Farrell street.
Electrical and Steam Engineers, No. 64	San Francisco	Alcazar Building.
Electrical Workers, No. 116	Los Angeles	1106 W. Jefferson street.
Electrical Workers, No. 61	Los Angeles	702 S. Grand street.
Electrical Workers, No. 250	Los Angeles	89 S. Third street.
Electrical Workers	Sacramento	1019 J street.
Electrical Workers, No. 180	Vallejo .....	.....
Elevator Constructors	San Francisco	1133 Mission street.
Engineers, No. 618 (Amal. Soc.)	San Francisco	102 O'Farrell street.
Engineers, No. 72 (Steam)	Los Angeles	229 N. Bunker Hill ave.
Engineers (Stationary)	Oakland	918 Washington street.
Engineers, No. 6	San José	Little Champion Hall.
Engineers	San Diego	Normanda and Fifth sts.
Engineers (Bro. of Loco.), Div. 5	Los Angeles	1015 Hawley street.
Engineers (Bro. of Loco.), Div. 110	Sacramento	Foresters' Building.
Engineers (Bro. of Loco.), Div. 126	Kern City .....	.....
Engineers (Bro. of Loco.), Div. 161	San Francisco	Valencia and Sixteenth sts.
Engineers (Bro. of Loco.), Div. 283	West Oakland	Seventh and Peralta sts.
Engineers (Bro. of Loco.), Div. 383	Needles .....	.....
Engineers (Bro. of Loco.), Div. 398	San Bernardino	I. O. O. F. Hall.
Engineers (Bro. of Loco.), Div. 415	Rocklin .....	.....
Engineers (Bro. of Loco.), Div. 425	Dunsmuir .....	.....
Engineers (Bro. of Loco.), Div. 553	Fresno City .....	.....
Engineers (Marine)	San Francisco	3 East street.
Expressmen	San Francisco	915½ Market street.
Felt and Composition Roofers	San Francisco	1133 Mission street.
Firemen (Stationary)	Vallejo .....	.....
Firemen (Stationary)	San Francisco	14 Third street.
Firemen (Marine)	San Francisco	46 Steuart street.
Firemen (Bro. of Loco.), No. 91	San Francisco	Sixteenth and Valencia sts.
Firemen (Bro. of Loco.), No. 143	Oakland	1356½ Tenth street.
Firemen (Bro. of Loco.), No. 260	Sacramento	418 Eighth street.
Firemen (Bro. of Loco.), No. 90	Los Angeles	794 Central ave.
Firemen (Bro. of Loco.), No. 97	Los Angeles	123 North ave.
Firemen (Bro. of Loco.), No. 58	Rocklin	Box 85.
Firemen (Bro. of Loco.), No. 139	Kern	Box 48.
Firemen (Bro. of Loco.), No. 312	Dunsmuir .....	.....
Firemen (Bro. of Loco.), No. 314	San Bernardino	Allen's Hall.
Firemen (Bro. of Loco.), No. 386	San Diego	957 Columbia street.
Firemen (Bro. of Loco.), No. 327	Needles	Box 27.
Garment Workers, No. 31	San Francisco	102 O'Farrell street.
Garment Workers, No. 125	Los Angeles	1315 Palmer street.
Gas Workers, No. 9840	San Francisco	Alcazar Building.
Gas and Electrical Fixtures Hangers	San Francisco	909 Market street.
Glassblowers	San Francisco	237 Twelfth street.
Glassblowers, No. 3	San Francisco	B. B. Hall, Eddy street.
Glass Workers	Los Angeles	1400 Magnolia avenue.
Glaziers and Ornamental Glass Workers	San Francisco	14 Third street.
Glovemakers, No. 10,028	San Francisco	24 Fourth street.
Granite Cutters	San Francisco	1159 Mission street.
Granite Cutters	Los Angeles	319 W. Eighth street.
Granite Cutters	Sacramento	Rocklin, Cal.

LABOR UNIONS—Continued.

Name of Organization.	Where Located.	Address.
Grocery Clerks, No. 648	San Francisco	117 Turk street.
Hackmen, No. 224	San Francisco	102 O'Farrell street.
Hatters	San Francisco	
Harnessmakers	San Francisco	1159 Mission street.
Harness Workers	Fresno	
Hoisting Engineers	San Francisco	32 O'Farrell street.
Horseshoers, No. 25	San Francisco	909 Market street.
Horseshoers	Los Angeles	Sixteenth and Figueroa sts.
Horseshoers, No. 58	San José	72 N. Second street.
Horseshoers	Sacramento	1019 J street.
Hodcarriers, No. 8333	Los Angeles	318 W. Fourth street.
Hodcarriers	Stockton	
Hodcarriers, No. 10,062	Santa Rosa	
Hodcarriers	Fresno	
Hodcarriers	Sacramento	1019 J street.
Housemovers	San Francisco	Erie and Mission streets.
Housemovers	Oakland	459 Eleventh street.
Houseraisers	Sacramento	1019 J street.
Ironmolders, No. 164	San Francisco	1133 Mission street.
Ironmolders, No. 374	Los Angeles	501 Temple street.
Ironmolders	Sacramento	1019 J street.
Ice Wagon Drivers	Sacramento	1019 J street.
Interior Wiremen	Sacramento	1019 J street.
Laborers, No. 8944	San Francisco	1320 Howard street.
Laborers' Protective Association	San Francisco	1159 Mission street.
Laborers, No. 2	Bakersfield	
Laborers (Building)	Los Angeles	Station A, Pasadena.
Laborers	San José	89 S. Third street.
Laborers, No. 10,148	Santa Rosa	
Laborers	Fresno	Union Hall.
Laborers	Oakland	459 Eleventh street.
Ladies' Tailors	San Francisco	115 Turk street.
Lathers, No. 42	Los Angeles	313 Amelia street.
Lathers	Oakland	459 Eleventh street.
Lathers	San José	89 S. Third street.
Lathers	Sacramento	1019 J street.
Laundry Workers (French)	San Francisco	117 Turk street.
Laundry Workers (Int'l Union), No. 23	San Francisco	812 Pacific street.
Laundry Workers (Int'l Union)	San Francisco	1159 Mission street.
Laundry Workers, No. 141	Bakersfield	Court House.
Laundry Workers, No. 52	Los Angeles	
Laundry Workers	Oakland	467½ Twelfth street.
Laundry Workers, No. 33	San José	Little Champion Hall.
Laundry Workers, No. 72	Stockton	828 Channel street.
Laundry Workers	Santa Rosa	
Laundry Workers, No. 86	Fresno	Y. M. I. Hall.
Laundry Workers	San Bernardino	
Laundry Workers	Sacramento	Pythian Castle.
Laundry Workers, No. 113	Vallejo	
Laundry Drivers, No. 256	San Francisco	Tenth and Market streets.
Laundry Drivers	Oakland	918 Washington street.
Laundry Drivers	Los Angeles	430 Beaudry street.
Leather Workers on Horse Goods, No. 57	San Francisco	B. B. Hall, Eddy street.
Leather Workers, No. 72	Los Angeles	Labor Hall.
Leather Workers	Sacramento	Pythian Castle.
Lithographers, No. 17	San Francisco	102 O'Farrell street.

LABOR UNIONS—Continued.

Name of Organization.	Where Located.	Address.
Lithographers' Feeders.....	Los Angeles.....	438 S. Spring street.
'Longshore Lumbermen.....	San Francisco.....	1133 Mission street.
'Longshoremen, No. 230.....	San Francisco.....	603 Front street.
'Longshoremen, No. 222.....	San Francisco.....	Folsom-street Bulkhead.
'Longshoremen, No. 224.....	San Francisco.....	Third and Berry streets.
'Longshoremen.....	Oakland.....	1015 Clay street.
'Longshoremen, No. 241.....	Stockton.....	Box 50.
'Longshoremen.....	San Diego.....	249 H street.
'Longshoremen, No. 169.....	Eureka.....	_____
Lumbermen, No. 9325.....	Los Angeles.....	526 Caroline street.
Lumber Handlers, No. 292.....	Stockton.....	Box 81.
Machinists, No. 68.....	San Francisco.....	Sixth and Shipley streets.
Machinists, No. 5.....	Bakersfield.....	K. of P. Hall.
Machinists, No. 311.....	Los Angeles.....	350 S. Hill street.
Machinists.....	Oakland.....	California Hall.
Machinists.....	San José.....	89 S. Third street.
Machinists.....	San Bernardino.....	_____
Machinists.....	Sacramento.....	1019 J street.
Machinists, No. 252.....	Vallejo.....	_____
Machine Hands, No. 27.....	San Francisco.....	1159 Mission street.
Machinist Helpers, No. 9179.....	San Francisco.....	773 Bryant street.
Milkers.....	San Francisco.....	_____
Milkers, No. 7595.....	Los Angeles.....	1010 Dewey ave.
Milkers.....	Sacramento.....	1019 J street.
Milk Drivers, No. 226.....	San Francisco.....	117 Turk street.
Mantel, Grate and Tile Setters.....	San Francisco.....	1133 Mission street.
Marble Cutters and Finishers.....	San Francisco.....	915½ Market street.
Mechanics' Helpers.....	Vallejo.....	240 Capitol street.
Metal-Polishers, No. 128.....	San Francisco.....	1133 Mission street.
Metal-Workers, No. 1.....	San Francisco.....	117 Turk street.
Millmen.....	Oakland.....	459 Eleventh street.
Miners, No. 61.....	Bodie.....	_____
Miners, No. 47.....	Confidence.....	_____
Miners, No. 90.....	Grass Valley.....	_____
Miners, No. 70.....	Hedges.....	_____
Miners, No. 51.....	Mojave.....	_____
Miners, No. 44.....	Randsburg.....	_____
Miners, No. 73.....	Quartz Mountain.....	_____
Miners, No. 39.....	Big Oak Flat.....	_____
Mosaic Workers.....	San Francisco.....	915½ Market street.
Musicians, No. 6.....	San Francisco.....	421 Post street.
Musicians, No. 47.....	Los Angeles.....	Caledonia Hall.
Musicians, No. 6.....	Oakland.....	459 Eleventh Street.
Musicians, No. 153.....	San José.....	Little Champion Hall.
Musicians.....	Fresno.....	_____
Musicians.....	Sacramento.....	1019 J street.
Musicians, No. 199.....	Vallejo.....	_____
Newspaper Mailers, No. 18.....	San Francisco.....	102 O'Farrell street.
Ordnance Men, No. 9585.....	Vallejo.....	_____
Painters, No. 19.....	San Francisco.....	927 Mission street.
Painters, No. 314.....	Bakersfield.....	I. O. O. F. Hall. [dena.
Painters.....	Los Angeles.....	William College Blk, Pasa-
Painters, No. 267.....	Los Angeles.....	1114 N. Thirty-first street.
Painters.....	Oakland.....	459 Eleventh street.
Painters, No. 507.....	San José.....	89 S. Third street.
Painters, No. 274.....	Stockton.....	B. T. U. Hall.

LABOR UNIONS—Continued.

Name of Organization.	Where Located.	Address.
Painters, No. 364	Santa Rosa	
Painters, No. 376	Vallejo	
Painters, No. 388	Mayfield	
Painters, No. 271	Los Gatos	
Painters	San Diego	Eighth st. between D and E.
Painters, No. 294	Fresno	Union Hall.
Painters	San Bernardino	
Painters, No. 396	Eureka	1804 D street.
Painters	Sacramento	1019 J street.
Paint Burners, No. 1	San Francisco	Potrero ave. and 24th st.
Paperhangers	San Francisco	915½ Market street.
Paper Box Makers	San Francisco	102 O'Farrell street.
Patternmakers	San Francisco	55 Third street.
Patternmakers	Los Angeles	742 Clara street.
Pavers, No. 8895	San Francisco	120 Ninth street.
Photo-Engravers, No. 8	San Francisco	32 O'Farrell street.
Picture Frame Workers, No. 147	San Francisco	117 Turk street.
Pile Drivers and Bridge Bldrs, No. 9078	San Francisco	9 Mission street.
Pipe and Tank Makers	Los Angeles	245 E. Ann street.
Plasterers, No. 66	San Francisco	20 Eddy street.
Plasterers, No. 194	Los Angeles	2217 Brooklyn ave.
Plasterers	Oakland	459 Eleventh street.
Plasterers, No. 224	San José	89 S. Third street.
Plasterers	Sacramento	1019 J street.
Plasterers, No. 2	Los Angeles	119½ E. First street.
Plumbers	San Francisco	32 O'Farrell street.
Plumbers, No. 269	Bakersfield	1419 Twentieth street.
Plumbers, No. 73	Los Angeles	915 W. Seventeenth street.
Plumbers, No. 78	Los Angeles	218 W. Sixth street.
Plumbers	Los Angeles	Pasadena.
Plumbers and Gasfitters	Oakland	459 Eleventh street.
Plumbers	San José	89 S. Third street.
Plumbers, Gas and Steam Fitters	Stockton	Odd Fellows' Building.
Plumbers, No. 251	Santa Rosa	
Plumbers	San Diego	1031 Sixteenth street.
Plumbers	Sacramento	1019 J street.
Plumbers and Gasfitters	Vallejo	
Pressmen (Web), No. 4	San Francisco	Alcazar Building.
Printing Pressmen, No. 24	San Francisco	32 O'Farrell street.
Pressmen, No. 78	Los Angeles	2611 Andrew street.
Pressfeeders, No. 36	Los Angeles	110 Commercial street.
Printing Pressmen	Oakland	Becker's Hall.
Pressmen	San Diego	Box 823.
Printing Pressmen	Sacramento	1019 J street.
Quarrymen	San José	89 S. Third street.
Railway Employés, No. 10	San Francisco	Parrott Building.
Railway Employés, No. 86	San Francisco	504 Taylor street.
Railway Employés, No. 12	Oakland	607 Eighteenth street.
Railway Employés, No. 5	Sacramento	
Railway Employés, No. 3	Dunsmuir	
Railway Employés, No. 62	Sausalito	Nicasio.
Railway Employés, No. 68	Newark	
Railway Employés, No. 78	Stockton	343 N. Union street.
Railway Employés, No. 11	San José	35 Fox ave.
Railway Employés, No. 65	Salinas	
Railway Employés, No. 40	San Luis Obispo	

LABOR UNIONS—Continued.

Name of Organization.	Where Located.	Address.
Railway Employés, No. 17	Bakersfield	Box 333 Kern.
Railway Employes, No. 23	Needles	_____
Railway Employés, No. 36	Los Angeles	_____
Rammermen, No. 9120	San Francisco	120 Ninth street.
Retail Clerks, No. 432	San Francisco	30 Fourth street.
Retail Shoe Clerks, No. 410	San Francisco	102 O'Farrell street.
Retail Clerks, No. 137	Bakersfield	Court-house.
Retail Clerks	Los Angeles	438 S. Spring street.
Retail Clerks	Oakland	Fraternal Hall.
Retail Clerks, No. 428	San José	Little Champion Hall.
Retail Clerks	Stockton	_____
Retail Clerks, No. 113	Santa Rosa	_____
Retail Clerks, No. 170	Fresno	Union Hall.
Retail Clerks	San Bernardino	_____
Retail Clerks, No. 541	Eureka	_____
Retail Clerks	Sacramento	1019 J street.
Retail Grocery Clerks	Sacramento	1019 J street.
Retail Clerks, No. 379	Vallejo	_____
Retail Delivery Drivers, No. 278	San Francisco	32 O'Farrell street.
Riggers and Stevedores	San Francisco	808 Montgomery street.
Riggers Protective	San Francisco	_____
Sailors	San Francisco	Cor. East and Mission.
Sailors	San Pedro	Box 2252.
Sailors	Eureka	Box 327.
Salesladies, No. 616	San Francisco	320 Post street.
Sanitary Wagon Drivers, No. 444	San Francisco	Garibaldi Hall.
Sawmill Workers	Eureka	_____
Sheet Metal Roofers, No. 1	San Francisco	1749 Mission street.
Sheet Metal Workers, No. 221	Vallejo	_____
Sheet Metal Workers	Sacramento	1019 J street.
Sheet Metal Workers	Oakland	459 Eleventh street.
Sheet Metal Workers, No. 108	Los Angeles	127½ N. Main street.
Ship and Steamboat Joiners, No. 8186	San Francisco	20 Eddy street.
Shipwrights and Caulkers, No. 9162	San Francisco	Teutonia Hall.
Shipwrights	San Francisco	320 Post street.
Shinglers	Oakland	459 Eleventh street.
Shinglers	Los Angeles	336 Omar ave.
Shoemakers	Los Angeles	418 S. Spring street.
Ship Drillers, No. 9037	San Francisco	1159 Mission street.
Stevedores	Oakland	California Hall.
Shingle Weavers	Eureka	_____
Shippers, Porters, and Packers	San Francisco	102 O'Farrell street.
Shipjoiners, No. 8835	Vallejo	_____
Ship Keepers	Vallejo	_____
Ship Drillers	Vallejo	_____
Sign and Pictorial Painters, No. 510	San Francisco	7 City Hall square.
Stablemen, No. 8760	San Francisco	102 O'Farrell street.
Stablemen	Sacramento	1019 J street.
Stablemen, No. 9026	San José	72 N. Second street.
Steamfitters and Helpers, No. 46	San Francisco	7 City Hall square.
Stereotypers, No. 29	San Francisco	32 O'Farrell street.
Stereotypers	Los Angeles	1304 W. Second street.
Steam Pipe and Boiler Coverers	San Francisco	1159 Mission street.
Stone Cutters	San Francisco	120 Eddy street.
Street Railway Employés, No. 205	San Francisco	927 Market street.
Street Railway Employés	Oakland	_____

LABOR UNIONS—Continued.

Name of Organization.	Where Located.	Address.
Street Railway Employés, No. 265.....	San José.....	72 N. Second street.
Street Railway Employés	Stockton .....	.....
Street Railway Employés	Sacramento	1019 J street.
Switchmen's Union of N. A., No. 43.....	Los Angeles	Firemen's Hall.
Switchmen's Union of N. A., No. 158.....	Oakland	Seventh and Peralta sts.
Switchmen's Union of N. A., No. 197.....	San Francisco.....	909 Market street.
Tanners, No. 9018.....	San Francisco.....	Potrero ave.
Tanners, No. 9112.....	San Francisco.....	Masonic Hall, Benicia.
Tanners, No. 9119.....	San Francisco.....	I.O.O.F. Hall, Redwood City
Tanners, No. 40	Santa Rosa .....	.....
Theatrical Stage Employés, No. 16.....	San Francisco.....	414 Mason street.
Theatrical Stage Employés.....	Los Angeles .....	.....
Theatrical Stage Employés.....	Sacramento .....	.....
Tailors	San Francisco.....	.....
Tailors, No. 81.....	Los Angeles	205½ S. Main street.
Tailors	Stockton	Native Sons' Hall.
Tailors, No. 339.....	Bakersfield	1417 Twentieth street.
Teamsters (Coal).....	San Francisco.....	14 Third street.
Team Drivers, No. 415.....	Vallejo .....	.....
Team Drivers, No. 208.....	Los Angeles	2127 City View.
Teamsters	Oakland	California Hall.
Team Drivers, No. 296	Stockton .....	.....
Teamsters, No. 417.....	Santa Rosa .....	.....
Team Drivers	San Diego .....	.....
Team Drivers	Sacramento	1019 J street.
Team Drivers, No. 35.....	San José.....	Little Champion Hall.
Teamsters (Bro. of).....	San Francisco.....	672 Fourth street.
Tile Layers, No. 24.....	Los Angeles	512 E. Eleventh street.
Tinners	San José.....	.....
Tobacco Workers, No. 74	San Francisco.....	3014 Twenty-fifth street.
Trainmen (Bro. of Railway), No. 198.....	San Francisco.....	Alcazar Building.
Trainmen (Bro. of Railway), No. 71	Oakland	Seventh and Peralta sts.
Trainmen (Bro. of Railway), No. 340.....	Sacramento	Unity Hall, I street.
Trainmen (Bro. of Railway), No. 74.....	Los Angeles	Leroy and Main streets.
Trainmen (Bro. of Railway), No. 278.....	San Bernardino.....	Masonic Hall, D street.
Trainmen (Bro. of Railway), No. 420.....	Fresno	Evinger Hall, I street.
Trainmen (Bro. of Railway), No. 430.....	Needles	K. of P. Hall.
Trainmen (Bro. of Railway), No. 458.....	Dunsmuir	K. of P. Hall.
Trainmen (Bro. of Railway).....	Bakersfield .....	.....
Trunk and Bag Workers	San Francisco.....	1749 Mission street.
Typographical, No. 21.....	San Francisco.....	533 Kearny street.
Typographical, No. 439.....	Bakersfield	Court House.
Typographical, No. 174.....	Los Angeles.....	624 S. Broadway.
Typographical, No. 36.....	Oakland	1015 Clay street.
Typographical, No. 231.....	San José.....	.....
Typographical, No. 56.....	Stockton	Box 140.
Typographical, No. 221.....	San Diego	Box 328.
Typographical, No. 144.....	Fresno .....	.....
Typographical, No. 84.....	San Bernardino.....	.....
Typographical, No. 207	Eureka .....	.....
Typographical, No. 46.....	Sacramento	1019 J street.
Typographical, No. 389.....	Vallejo .....	.....
Undertakers' Assistants, No. 9049.....	San Francisco.....	946 Mission street.
United Cloth Hat and Cap Makers, No. 9.....	San Francisco.....	117 Turk street.
Upholsterers, No. 28	San Francisco.....	7 City Hall square.
Upholsterers and Carpet Layers.....	Stockton	37 N. California street.

LABOR UNIONS--Continued.

Name of Organization.	Where Located.	Address.
Varnishers and Polishers, No. 134.....	San Francisco.....	117 Turk street.
Vinegar Makers and Purveyors.....	San Francisco.....	102 O'Farrell street.
Waiters' Alliance	San Francisco.....	Alcazar Building.
Waiters' and Waitresses' Alliance	Los Angeles.....	127 N. Main street.
Woodworkers, No. 147.....	San Francisco.....	909 Market street.
Woodworkers, No. 144.....	Los Angeles.....	1215 E. Eighth street.
Woodworkers, No. 161.....	Fresno	Edgerly Building.
Woodworkers	Sacramento	1019 J street.
Wood, Wire and Metal Lathers	San Francisco.....	117 Turk street.
Wool Sorters and Graders, No. 9025	San Francisco.....	117 Turk street.

CENTRAL LABOR BODIES AND DEPARTMENTAL COUNCILS, ETC.**San Francisco.**

Labor Council.....	927 Market street.
Building Trades Council.....	927 Mission street.
District Council of Carpenters.....	927 Mission street.
Allied Printing Trades Council.....	533 Kearny street.
District Council of Painters.....	927 Mission street.
District Council of Sheet Metal Workers.....	927 Mission street.
Iron Trades Council	1133 Mission street.
Retail Trades Council.....	102 O'Farrell street.
City Front Federation	Cor. East and Mission sts.
California State Federation of Labor.....	927 Market street.

Los Angeles.

United Labor Council.....	218 W. Sixth street.
Building Trades Council.....	127 N. Main street.
District Council of Carpenters.....	Labor Hall.
Allied Printing Trades Council.....	3112 Eagle street.
Women's Union Label League.....	1506 E. Eighth street.
Brewery Workers' Section.....	Labor Hall.

Oakland.

Federated Trades Council.....	1015 Clay street.
District Council of Carpenters.....	1015 Clay street.
Building Trades Council.....	459 Eleventh street.

Sacramento.

Federated Trades Council.....	1019 J street.
Building Trades Council.....	1019 J street.
Allied Printing Trades Council.....	1019 J street.

Bakersfield.

Labor Council.....	Box 662.
--------------------	----------

San Jose.

Federated Trades Council.....	757 Orchard street.
Building Trades Council.....	Elite Hall.

Stockton.

Federated Trades Council.....	Box 269.
Building Trades Council.....	Box 129.

Santa Rosa.

Labor Council.....	_____
--------------------	-------

San Diego.

Federated Trades Council.....	723 Fifth street.
-------------------------------	-------------------

CENTRAL LABOR BODIES, ETC.—Continued.

Name of Organization.	Fresno.	Address.
Federated Trades Council.....		829 P street.
Building Trades Council.....		St. John's Courtroom.
	San Bernardino.	
Central Labor Council.....		Box 275.
	Eureka.	
Federated Trades Council.....		Box 275.
	Vallejo.	
Trades and Labor Council.....		

FEDERAL LABOR UNIONS.

Federal Labor Union, No. 8,679.....	Vallejo.
Federal Labor Union, No. 10,009.....	Library Hall, Kern City.
Federal Labor Union, No. 10,020.....	Court House, Bakersfield.
Federal Labor Union, No. 9,614.....	104 N. Los Angeles st., L. A.
Federal Labor Union, No. 8,921.....	San Pedro.
Federal Labor Union, No. 9,459.....	San Bernardino.

In the "List of Labor Organizations" is presented a complete roster of all such bodies throughout the State, together with the addresses to which communications may be directed. The figures immediately following the name of the organization represent the local numbers of those bodies which are affiliated with national or international unions. Generally speaking, where no local number appears the organization in question may be known as "independent," that is, as having no affiliation with the national or international union of the respective craft. Exceptions to this rule must be made in the case of a few local unions which have omitted to give such numbers when making returns to the Bureau, and in the case of the Sailors' Union of the Pacific, and perhaps one or two others, which, although affiliated with the national or international unions of their respective crafts, are designated by "districts" or other means peculiar to themselves. An inspection of the list, with reference to this feature, shows that by far the larger number of organizations are affiliated with national or international unions, thus constituting part of what is commonly called the national labor movement. Comparison with preceding reports of the Bureau shows that this movement toward national or international affiliation has grown largely of late; that the "independent" union is now the exception, not, as formerly obtaining in this State, the rule.

The list comprises a total of 495 separate organizations in the State, as compared with a total of 217 contained in the preceding report. Of these organizations, 162 are located in San Francisco, 68 in Los Angeles, 45 in Sacramento, and 36 in Oakland; the remainder being distributed in about equal proportion to population in each locality of the State. Many localities that have heretofore made no returns, because of the absence of trade-unions therein, are represented in the present list by a showing of practically complete organization among the workers. These

figures are exclusive of central labor bodies, of which there are 40, and Federal labor unions, of which there are 6.

The number of separate vocations represented in the list is 149, as compared with 81 in the preceding report. The total membership is estimated to be 67,500, of whom 45,000 are located in San Francisco, as compared with a total of 30,000, of whom 20,000 were located in San Francisco, in the preceding report.

Practically, the number of trade-unions throughout the State has increased to the extent of 75 per cent in the past two years. This proportion of growth has been exceeded in several localities, notably in Los Angeles and Sacramento. In the first-named city the number of unions has increased from 26, in 1900, to 68 in the present year (an increase of over 150 per cent); in the last-named city the growth has been as 20 to 45 (an increase of 125 per cent). The individual membership shows an increase of 125 per cent.

The growth of the labor movement is mainly noticeable in San Francisco, but has been well maintained, both as to the number of unions and their individual membership, in all parts of the State. The increase of membership in San Francisco is largely accounted for by the growth of organization among the butchers, cooks and waiters, laundry-workers, railway employés, retail clerks, stablemen, street-railway employés, tanners, teamsters, barbers, hodcarriers, and laborers. With the exception of the three last named, these trades appear in the "List of Labor Organizations" for the first time in the report of this Bureau.

An essential feature of the list, as demonstrating the tendency toward systematizing and consequent greater efficiency of the labor movement, is that dealing with central labor bodies. The list presents the names of 40 such bodies. The preceding report of the Bureau shows the existence of 10 central labor bodies in 1900. In addition to the central labor bodies, the present list contains the names of 6 Federal labor unions. In the preceding report it was noted (page 108) that "slightly less than one half of the labor organizations of the State are members of local central bodies." A close inspection of the names contained in the present list shows that practically all of the unions are now affiliated with the central labor bodies in the respective localities. A part of the increase in the number of central labor bodies, say one fourth, is due to the segregation of unions of kindred crafts in a given locality (such as carpenters, painters, ironworkers, teamsters, printers, brewery workers, and retail clerks) into "departmental councils," for the purpose of dealing with matters affecting only such kindred crafts. These "departmental councils" are formed out of the central labor bodies proper, to which are referred all matters of general concern. The net increase in the number of the latter during the past two years is, therefore, 30.

The formation of Federal labor unions is significant of the growth of

trade-unionism among the workers in those crafts which respectively employ few persons, and in those small communities in which the numbers employed in any given craft are not sufficient to enable the persons so employed to form separate unions. The Federal labor unions are composed of all such workers in the respective localities, and are chartered by the American Federation of Labor, which body maintains the same relations and extends the same support to the Federal labor unions as do the national and international unions to their respective locals.

The California State Federation of Labor was established in January, 1901. Its purpose is to combine the labor organizations of the State for the protection and furtherance of interests common to the workers of the State. Generally speaking, the State Federation of Labor occupies the same relative position toward the labor movement of the State as do the central labor bodies and the American Federation of Labor to the unions within their respective spheres, local and national.

The growth of organization among the workers of the State, noted in the preceding report (pages 84 to 122), has continued without abatement. In this connection it is well to revert to the Bureau's observations, as given in the preceding report. It is there stated (page 96) that "Table No. 3 reveals that the percentage of the wage-earners belonging to an organization in any given vocation and locality, while ranging all the way from 5 to 100, is in most instances given as between 75 and 100 per cent, and justifies the belief that a fair average approximate of such percentage would be 80; which in turn justifies the belief that there are, as wage-earners, in the several vocations represented in Table No. 2, within this State, about 37,500 persons. In connection herewith, however, allowance must be made for the fact that workers, in the several vocations, few in the individual case, but many in the aggregate, are found scattered over the State, remote from the centers of industry, and, usually, not members of labor organizations."

The present report estimates the total membership of the labor organizations of the State to be 67,500, as compared with 37,500, estimated by the preceding report to be the total number of persons (organized and unorganized) engaged in the crafts represented in the list of organizations making returns. This great increase is due to the increase (from 80 to 100) in the percentage of those organized in any given craft; to the fact that the workers in almost all trades and in every locality have recently been organized; and to the further fact that among the trades now appearing for the first time in the "List of Labor Organizations" are many employing large numbers of persons. Present appearances indicate that this growth will continue, limited only, not by the inclination or disinclination of labor itself, but by the demand for labor in the industries of the State.

ARBITRATION IN WAGE AND OTHER DISPUTES BETWEEN CAPITAL AND LABOR.

The thought that in our present-day civilization there can be no potent organization among workers, unless at the same time there exist conditions which make profitable the investment of capital, may or may not be new, but it is a fact which is rapidly forcing recognition of itself upon the understanding of all men.

The prosperity of the last few years throughout all of the United States has made it possible, in very many cases, for the respective classes of wage-workers to make and enforce demands for higher wages and better conditions through the medium of labor organizations.

To say that the making and attempted enforcement of such demands have, in many cases and places, brought bitter industrial strife between employer and employé is but to repeat history or the current news of the day.

With the exigencies of such strife a quite general desire has come for some form of procedure in industrial disputes which, while promoting harmonious and amicable settlements and relations between employers and employés, will, at the same time, promote the peace and welfare of those others of our people who, while not directly concerned in such disputes, are incidentally at all times injured and inconvenienced thereby; and the quite generally accepted belief would seem to be, that in arbitration is to be found the form of procedure most promising as to success as a means to the end desired. Hence, it seems most appropriate, at this time and here, to place before the people of the State of California a careful résumé of the subject of arbitration as applied to industrial disputes as far as progress has been made along such lines within latter years and up to date.

Noting, first, that there are two forms of arbitration to be considered, to wit: the one compulsory, and the other voluntary, it may be observed that as to the former, the New Zealand Industrial Conciliation and Arbitration Act may be regarded as the mother of such arbitration, for it is the Act most generally referred to by the believers in the utility of such arbitration, as in its operation demonstrating the entire utility of such form of procedure in the accomplishment of the results herein

named as desired. It therefore seems proper, in the beginning, to set forth the said Act in full:

THE NEW ZEALAND INDUSTRIAL CONCILIATION AND ARBITRATION ACT OF AUGUST 31, 1894, WITH THE PROVISIONS OF THE AMENDING ACTS OF OCTOBER 18, 1895, OCTOBER 17, 1896, AND NOVEMBER 5, 1898, INCORPORATED.

An Act to Facilitate the Settlement of Industrial Disputes by Conciliation and Arbitration, 31st August, 1894.^a

Be it enacted by the General Assembly of New Zealand, in Parliament assembled, and by the authority of the same, as follows:

1. The short title of this Act is "The Industrial Conciliation and Arbitration Act, 1894." It shall come into force on the first day of January, one thousand eight hundred and ninety-five.

2. In this Act, unless the context otherwise requires, "Association" means an industrial association registered pursuant to this Act.

"Board" means a board of conciliation for an industrial district constituted under this Act, and includes a special board of conciliation.

"Court" means the court of arbitration constituted under this Act.

"Employer" includes persons, firms, companies, and corporations employing workers.^b

"Industrial dispute" means any dispute arising between one or more employers or industrial unions, trade-unions, or associations of employers and one or more industrial unions, trade-unions, or associations of workers in relation to industrial matters as herein defined.

"Industrial matters" means all matters or things affecting or relating to work done or to be done, or the privileges, rights, or duties of employers or workers in any industry, and not involving questions which are or may be the subject of proceedings for an indictable offense; and, without limiting the general nature of the above definition, includes all or any matters relating to—

(a) The wages, allowances, or remuneration of any persons employed in any industry, or the prices paid or to be paid therein in respect of such employment;

(b) The hours of employment, sex, age, qualification or status of workers, and the mode, terms, conditions of employment;

(c) The employment of children or young persons, or of any person or persons or class of persons in any industry, or the dismissal of or refusal to employ any particular person or persons or class of persons therein;

(d) Any established custom or usage of any industry, either generally or in the particular district affected;

(e) Any claim arising under an industrial agreement.

"Industrial union" means an industrial union registered and incorporated under this Act.

"Industry" means any business, trade, manufacture, undertaking, calling, or employment of an industrial character.

"Officer" of a trade-union, industrial union, or association of workers, means only the president, vice-president, secretary, or treasurer of such body.

"Prescribed manner" means the manner prescribed by regulations made pursuant to this Act.

"Registrar" means the Registrar of Friendly Societies.

"Supreme Court office" means the office of the supreme court in the district consti-

^a The words "to encourage the formation of industrial unions and associations and," appearing immediately after the word "Act" in the principal Act, were suppressed by the Amendment Act, 1898.

^b The principal Act uses the word "workmen." The Amendment Act, 1895, provides that the word "workers" shall be substituted for "workmen" throughout the Act.

tuted under "The Supreme Court Act, 1882," wherein any matter arises to which such expression relates; and, where there are two such offices in any such district, it means that one of such offices which is nearest to the place or locality wherein any such matter arises.

"Trade-union" means any trade-union registered under "The Trade-Union Act, 1878."

Words in this Act referring to any clerk, person, officer, office, place, locality, union, association, or other matter or thing, shall be construed distributively as referring to each clerk, person, officer, office, place, locality, union, association, or matter or thing to whom or to which the provision is applicable.

PART 1.

REGISTRATION OF INDUSTRIAL UNIONS AND ASSOCIATIONS.

(1) *Industrial Unions.*

3. A society consisting of any number of persons not being less than five,^a residing within the colony, lawfully associated for the purpose of protecting or furthering the interests of employes or workers in or in connection with any industry in the colony, and whether formed before or after the passage of this Act, may be registered as an industrial union pursuant to this Act on compliance with the following provisions:

(1) An application for registration, stating the name of the proposed industrial union, shall be made to the registrar, signed by two or more officers of the society.

(2) Such application shall be accompanied by (a) a list of the members and officers of the society; (b) two copies of the rules of the society; (c) a copy of a resolution passed by a majority of the members present at a general meeting of the society specially called in accordance with the rules for that purpose only, and desiring registration as an industrial union.

(3) Such rules shall specify the purposes for which the society is formed, and shall provide for—

(a) The appointment of a committee of management, a chairman, secretary, and any other necessary officers; or, if thought fit, of a trustee or trustees; and for supplying any vacancy occurring through any cause prescribed by the rules, or by death or resignation;

(b) The powers, duties, and removal of the committee, and of any chairman, secretary, or other officer or trustee of the society, and the control of the committee by general or special meetings;

(c) The manner of calling general or special meetings, the quorum thereat, and the manner of voting thereat;

(d) The mode in which industrial agreements and any other instruments shall be made and by whom executed on behalf of the society, and in what manner the society shall be represented in any proceedings before a board or the court;

(e) The custody and use of the seal, including power to alter or renew the same;

(f) The control of the property of the society, and the investment of the funds thereof, and for an annual or other periodical audit of the accounts;

(g) The inspection of the books and the names of members of the society by every person having an interest in the funds thereof;

(h) A register of members and the mode in which and the terms on which persons shall become or cease to be members, and so that no member shall discontinue his membership without giving at least three months' previous written notice to the secretary of intention so to do, nor until such member has paid all fees or other dues payable by him to the union under its rules, and which fees or dues, in so far as they are owing for any period of membership subsequent to the registration of the society under this Act, may be used for and recovered in any court of competent jurisdiction by any person or authority empowered to do so by law or by such rules;

(i) The conduct of the business of the society at some convenient address to be specified, and to be called the registered office of the society.

4. (1) The rules may also provide for any other matters not contrary to law, and for

^a Changed from seven in the principal Act to five by the Amendment Act, 1895.

their amendment, repeal, or alteration, but so that the requisites of subsection three of the last preceding section shall always be provided for.

(2) Copies of all amendments or alterations of any rules shall, after being verified by the secretary or some other officer of the society, be sent to the registrar, who shall record the same.

(3) A printed copy of the rules of the society shall be delivered by the society to any person requiring the same, on payment of a sum not exceeding one shilling (24 cents).

Notwithstanding anything to the contrary contained in section three of the principal Act, it is hereby enacted as follows: Where a co-partnership firm is a member of any such society, each individual partner residing in New Zealand shall be deemed an individual member of the society, and also of the industrial union when such society is registered as a union; any incorporated or registered company may be registered as an industrial union of employers.^a

Each industrial union shall be deemed to be in the industrial district wherein its registered office is situate, and shall exercise its right of voting at the election of the board of that district accordingly, or in any industrial district in which such industrial union shall carry on its business, or any branch or part of its business; and for such purpose any such union may also be registered in any or every of such industrial district or districts.^b

In the case of any incorporated or registered company the directors shall sufficiently represent the members for the purpose of the application to register as an industrial union of employers, and the resolution prescribed by subsection one of section three of the principal Act may accordingly be a resolution of the directors.^c

5. On being satisfied that the provisions of section three in relation to an application for registration have been complied with, the registrar shall register the society, without fee, as an industrial union pursuant to the application, and shall issue a certificate of registry and incorporation, which, unless proved to have been canceled, shall be conclusive evidence of the fact of such registration and incorporation, and of the validity thereof.

6. Upon receiving such certificate, every such industrial union shall become a body corporate, by the registered name, having perpetual succession until dissolved or the registration thereof is canceled as hereinafter provided, and shall have a common seal. There shall be inserted in the registered name of every industrial union the word "employers," or "workers," according to whether such union shall be a union of employers or workers, as thus: The Bootmakers' Industrial Union of Workers.

7. Any industrial union may purchase or take on lease, in the name of the union or of trustees for such union, any house or building, and any land, and may sell, mortgage, exchange, or let the same, or any part thereof; and no purchaser, assignee, mortgagee, or tenant shall be bound to inquire whether the union or the trustees have authority for such sale, mortgage, exchange, or letting; and the receipt of such trustees shall be a discharge for the money arising therefrom.

8. Any trade-union registered under "The Trade-Union Act, 1878," may be registered by the same name (with the insertion of such additional words as aforesaid) under this Act by making application to the registrar for the purpose; and the registrar shall register such trade-union as an industrial union accordingly, and issue a certificate of registration and incorporation as hereinbefore provided.

For the purposes of this Act every branch of a trade-union shall be considered as a distinct union, and may be separately registered as an industrial union under this Act; and the rules for the time being of any trade-union, with such addition or modification as may be necessary to give effect to this Act, shall be deemed to be the rules of the industrial union when registered under this enactment; provided, that the registrar shall not refuse to register a trade-union the rules of which contain such addition or

^a This paragraph was inserted by the Amendment Act, 1895. The clause making five the minimum membership of an industrial union is not reproduced, as the change has already been noted.

^b This paragraph was inserted by the Amendment Acts of 1895 and 1896, the latter amending the former by adding part beginning with "or in any industrial district," etc.

^c This paragraph was inserted by the Amendment Act, 1896.

modification as aforesaid, unless such rules are distinctly contrary to some express provision of this Act.

9. No industrial union shall be registered under a name identical with that by which any other industrial union has been registered under this Act, or by which any other trade-union has been registered under "The Trade-Union Act, 1878," or so nearly resembling any such name as to be likely to deceive the members or the public.

10. The effect of registration shall be to render the industrial union, and all persons who may be members of any society or trade-union registered as an industrial union at the time of registration, or who after such registration may become members of any society or trade-union so registered, subject to the jurisdiction by this Act given to a board and the court respectively, and liable to all the provisions of this Act, and all such persons shall be bound by the rules of the industrial union during the continuance of the membership.

11. Any industrial union may at any time apply to the registrar in the prescribed manner for a cancellation of the registration thereof, and the registrar, after giving six weeks' public notice of his intention so to do, may cancel such registration; but no registration shall be canceled during the progress of any conciliation or arbitration affecting such union until the board or court has given its decision or made its award, nor in any case unless the registrar shall be satisfied that the cancellation is desired by a majority of the members of the union; and no cancellation of any registration shall relieve any industrial union, or any member thereof, from the obligation of any industrial agreement or award of the court.

(2) *Industrial Associations.*

12. Any council or other body, however designated, representing any number of industrial unions established within the colony, may be registered as an industrial association pursuant to this Act.

All the provisions of this Act hereinbefore contained in sections three to eleven inclusive, shall, *mutatis mutandis*, extend and apply to an industrial association, and shall be read and construed accordingly, so far as applicable.

(3) *General.*

13. In the months of January and July in every year there shall be forwarded to the registrar by every association a list of the unions constituting such association; and in the same months in every year there shall be forwarded to the registrar by every industrial union a list of the members of such union. Each such list shall be verified by the statutory declaration of the president or chairman of each such association and union, and such statutory declaration shall be prima facie evidence of the truth of the matters therein set forth. Each such list shall specify the names of all the officers (including trustees) of each such association or union.^a

14. Every association or industrial union making default in forwarding to the registrar any list required to be forwarded by the last-preceding section shall be guilty of an offense against this Act, punishable by a penalty not exceeding two pounds (\$9.73) for every week during which such default continues; and every member of the council of any such association or committee of any such union who willfully permits such default shall be guilty of a similar offense, punishable by a penalty not exceeding five shillings (\$1.22) for every week during which he willfully permits such default.

15. Every association or industrial union may sue or be sued for the purposes of this Act by the name by which it is registered, and service of any process, notice, or document of any kind may be effected by delivering the same to the chairman or secretary of such union or association, or by leaving the same at the registered office of such union or association.

16. All deeds and instruments of any kind which the union or association is required to execute for the purpose of this Act, or any regulations in force thereunder, may be made and executed under the seal of such union or association and signed by the chairman and secretary thereof, or in such other manner as may be provided in the rules of the union or association.

^a This paragraph was inserted by the Amendment Act, 1895.

PART 2.

INDUSTRIAL AGREEMENTS.

17. The parties to industrial agreements may be (1) trade-unions, (2) industrial unions, (3) industrial associations, (4) employers; and any such agreement may provide for any matter or thing affecting any industrial matter, or in relation thereto, or for the prevention or settlement of an industrial dispute.

18. Every industrial agreement may be varied, renewed, or canceled by any subsequent industrial agreement made by and between the parties thereto, or any additional parties, but so that no person shall be deprived of the benefit of any industrial agreement to which he is a party by any subsequent industrial agreement to which he is not a party.

19. Every industrial agreement shall be for a term to be specified therein, not exceeding three years from the date of the making thereof, and shall commence as follows: "This agreement, made in pursuance of 'The Industrial Conciliation and Arbitration Act, 1894,' this day of, between, " and then set out the matters agreed upon; and the date of the making of such agreement shall be the date when such agreement shall be first signed or executed by any party thereto; and such date, and the names of all industrial unions, trade-unions, associations, or employers, parties to such agreement, shall be truly stated therein.

20. A duplicate of every industrial agreement shall be filed in the supreme court office within thirty days of the making thereof, and a fee of five shillings (\$1.22) shall be paid in respect of every agreement so filed.

21. Every industrial agreement duly made and executed shall be binding on the parties thereto and on every person who at any time during the term of such agreement is a member of any industrial union, trade-union, or association party thereto, and on every employer who shall in the prescribed manner signify to the registrar of the supreme court where such agreement is filed concurrence therein, and every such employer shall be entitled to the benefit thereof, and be deemed to be a party thereto.

22. (1) For the purpose of enforcing industrial agreements, whether made before or after the coming into operation of this Act, the provisions of the last-preceding section hereof (see Section 75-81), shall, *mutatis mutandis*, apply in like manner in all respects as if an industrial agreement were an award of the court, and the court shall accordingly have full and exclusive jurisdiction to deal therewith.^a

(2) Any industrial agreement may fix and determine what shall constitute a breach of an agreement within the meaning of this Act.

(3) Nothing herein contained shall deprive any person who may be damnified of his right of action for redress or compensation in respect of any breach of an agreement.

23. (Repealed by the Amendment Act, 1898. See footnote to section twenty-two.)

PART 3.

CONCILIATION AND ARBITRATION.

(1) *Preliminary.*

24. (1) The Governor may from time to time divide New Zealand, or any portion thereof, into such districts as he shall think fit, to be called "industrial districts," and notice of the constitution of every such district shall be given in the Gazette as occasion requires.

(2) If any such district is constituted by reference to, or be included within, the limits or boundaries of any other portion of the colony defined or created under any Act, then, in case of the alteration of the boundaries of such portion of the colony, such alteration shall take effect in respect of the district constituted under this section without any further proceeding, unless the Governor shall otherwise determine.

25. In and for every industrial district the Governor shall appoint a clerk of awards (hereinafter referred to as "the clerk"), who shall be attached to the office of the registrar,

^a The provisions of this paragraph are in substitution of the provisions of subsection (1) of section twenty-two, and of section twenty-three, of the principal Act, according to the Amendment Act, 1898.

and shall be subject to the control and direction of that officer, and shall in the prescribed manner report to the registrar all proceedings taken or done by or before him.

The office of clerk may be held either separately or in conjunction with any other office in the public service, as the Governor may determine, and he shall be paid such salary or other remuneration as the Governor thinks fit.

26. It shall be the duty of the clerk:

(1) To receive, register, and deal with all applications within his district lodged for reference of any industrial dispute to the board for the district, or to the court;

(2) To convene the board or court for the purpose of dealing with any such dispute;

(3) To keep a register in which shall be entered the particulars of all references and settlements of industrial disputes made to and by the board, and of all references and awards made to and by the court;

(4) To issue all summons to witnesses to give evidence before the board or court, and to issue all notices and perform all other acts in connection with the sittings of the board or court in the prescribed manner; and

(5) Generally to do all such things and to take all such proceedings as may be required in the performance of his duties by this Act or in the prescribed manner, or, in the absence of regulations, with the directions of the registrar.

27. Any board and the court, and, being authorized in writing by the board or court, any member of such board or court respectively, or any officer of such board or court, without any other warrant than this Act, at any time between sunrise and sunset—

(1) May enter upon any manufactory, building, workshop, factory, mine, mine-workings, ship or vessel, shed, place, or premises of any kind whatsoever, wherein or in respect of which any industry is carried on or any work is being or has been done or commenced, or any matter or thing is taking or has taken place, which has been made the subject of a reference to such board or court;

(2) May inspect and view any work, material, machinery, appliances, article, matter, or thing whatsoever being in such manufactory, building, workshop, factory, mine, mine-workings, ship or vessel, shed, place, or premises, as aforesaid;

(3) May interrogate any person or persons who may be in or upon any such manufactory, building, workshop, factory, mine, mine-workings, ship or vessel, shed, place, or premises, as aforesaid, in respect of or in relation to any matter or thing hereinbefore mentioned.

And any person who shall hinder or obstruct the board or court, or any member or officer thereof respectively, in the exercise of any power conferred by this section, or who shall refuse to the board or court, or any member or officer thereof respectively, duly authorized as aforesaid, entrance during any such time as aforesaid to any such manufactory, building, workshop, factory, mine, mine-workings, ship or vessel, shed, place, or premises, or shall refuse to answer any question put to him as aforesaid, shall for every such offense be liable to a penalty not exceeding fifty pounds (\$243.33).

28. The following persons shall be disqualified from being appointed or elected, or from holding office, as chairman, or as a member of any board, or as president, or a member of the court, and if so elected or appointed shall be incapable of continuing to be such member, president, or chairman:

(1) A bankrupt who has not obtained his final order of discharge;

(2) Any person convicted of any crime for which the punishment is death or imprisonment with hard labor for a term of three years or upwards; or

(3) Any person of unsound mind.

No person whilst holding a seat on one board shall hereafter be eligible for nomination or election to a seat on any other board, and if he is so elected his election shall be void.^a

If any person allows himself to be nominated for election as member of more boards than one, both nominations shall be void.^a

In the event of any person's election becoming void under this section the Governor shall fill the vacancy by appointment, in the same manner as if the prescribed number of members had not been elected, anything in section thirty-six of the principal Act to the contrary notwithstanding.^a

^a This paragraph was inserted by the Amendment Act, 1896.

This section shall apply both to boards of conciliation and to special boards of conciliators *inter se*, but shall not otherwise affect the operation of section forty-one of the principal Act, nor shall it in any way affect any election held before the coming into operation of this Act.^a

29. Whenever an industrial dispute shall be referred to a board or the court, as hereinafter provided, no industrial union or association, trade-union, or society, whether of employers or workers, and no employer who may be a party to the proceedings before the board or court, shall, on account of such industrial dispute, do any act or thing in the nature of a strike or lockout, or suspend or discontinue employment or work in any industry affected by such proceedings, but each party shall continue to employ, or be employed, as the case may be, until the board or court shall have come to a final decision in accordance with this Act. But nothing herein shall be deemed to prevent any suspension or discontinuance of any industry, or from working therein, for any other good cause.

No industrial dispute shall be referred for settlement to a board by an industrial association, industrial union, or trade-union, and no application shall be made to the court for the enforcement of any award, except in pursuance of a resolution passed by a majority of the members present at a meeting specially summoned by notice being posted to each member, stating the nature of the proposal to be submitted to the meeting.^b

(2) *Boards of Conciliation.*

30. In and for every industrial district there shall be established a board of conciliation, to have jurisdiction for the settlement of industrial disputes occurring in such district which may be referred to it by one or more of the parties to an industrial dispute or by industrial agreement.

31. The Governor may determine the number of persons who (together with the chairman) shall compose the board of such district, subject, however, to the express provisions of this Act, and such number shall be stated in the notice of the constitution of the district.

32. With respect to the first and subsequent elections of boards, the following provisions shall have effect:

(1) Every board shall consist of such equal number of persons as the Governor may determine, being not more than six nor less than four persons, who shall be chosen by the industrial unions of employers and of workers in the industrial district respectively, such unions voting separately and electing an equal number of such members.

(2) The chairman of such board shall be in addition to the number of members before mentioned, and be elected as hereinafter provided.

(3) Every board shall be elected in the following manner:

(a) The clerk shall act as returning officer, and do the acts and things hereinafter mentioned;

(b) First elections of a board shall be held within thirty days after the constitution of the district, and the returning officer shall give fourteen days' notice in one or more newspapers circulating in the district of the day and place of election, which shall be so arranged that the industrial unions of employers shall vote at one time and the industrial unions of workers at another time on the day fixed; provided, that the Governor may from time to time extend the period within which any elections shall be held for such time as he thinks fit;

(c) Persons shall be nominated for election in such manner as the rules of the industrial union may prescribe, or if there be no such rule, nominations shall be made in writing by the chairman of the union, and lodged with the returning officer at least three days before the date of election. Each nomination shall be accompanied by the written consent of the person nominated, and forms of nomination shall be provided by the returning officer on application to him for that purpose;

(d) When all the nominations have been received, the returning officer shall give notice of the names of persons nominated by affixing a list thereof on the door of his office at least one clear day before the day of election;

^a This paragraph was inserted by the Amendment Act, 1896.

^b This paragraph was inserted by the Amendment Act, 1898.

(e) If it shall appear that no greater number of persons are nominated than require to be elected, the returning officer shall at once declare such persons elected. If the number of persons so nominated exceeds the number required to be elected, then votes shall be taken as hereinafter provided;

(f) The returning officer shall preside at the election by each division of industrial unions entitled to vote, and the vote of each such union shall be signified in writing in the prescribed manner, and on being tendered by the chairman of the union, or by some person appointed by the union for that purpose in accordance with its rules, the returning officer shall record the vote in such manner as he thinks fit;

(g) Each industrial union shall have as many votes as there are persons to be elected by its division, and the persons having the highest aggregate number of votes in such division, not exceeding the number to be elected, shall be deemed elected;

(h) If it shall happen that two or more candidates have an equal number of votes, the returning officer, in order to complete the election, shall give such votes to one or more of such candidates as he thinks fit; provided, that any candidate may in any such case agree to withdraw from the election;

(i) As soon as possible after the votes of each division of industrial unions have been recorded, the returning officer shall ascertain what persons have been elected as before provided, and shall state the result in writing, and forthwith post the same in some public place at the place of election;

(j) In case of any dispute touching the sufficiency of the nomination, the mode of election, or the result thereof, or any matter incidentally arising in or in respect of such election, the same shall be decided by the returning officer, whose decision shall be final;

(k) In case any election is not completed for any cause on the day appointed, the returning officer may adjourn the election, or the completion thereof, to the next or any subsequent day, and may then proceed with the election;

(l) The whole of the voting papers shall be securely kept by the returning officer during the election, and thereafter shall be put in a packet and kept for one month, when he shall cause the whole of them to be effectually destroyed;

(m) Neither the returning officer nor any person employed by him shall (except in discharge of his duty) disclose for whom any vote has been given or tendered, either before or after the election is completed, or retain possession of or exhibit any voting paper used at the election, or give any information to any person as to all or any of the matters herein mentioned; and if any person shall commit a breach of this provision he shall be liable to a penalty not exceeding twenty pounds (\$97.33).

But nothing herein contained shall be deemed to forbid the disclosure of any fact or the doing of any act hereby prohibited if the same be required in obedience to the process of any court of law.

(4) The clerk shall, after the completion of the election, appoint a day for the first meeting of the members elected, and shall give at least three days' notice in writing to each member. At such meeting the members shall elect some impartial person, not being one of their number, and willing to act, to be chairman of the board.

33. As soon as may be after the election of the chairman, the clerk shall transmit to the Governor a list of the names of the respective persons elected as members and as chairman of the board, and the Governor shall cause notice thereof to be published in the Gazette, and the date on which such notice is to be published shall be deemed to be the date of election, and such notice shall be final and conclusive for all purposes.

34. The members of the board and the chairman shall hold office for the period of three years from the date of the publication of such notice in the Gazette, and until their successors are elected.

35. On the expiration of every third year after the first election of members of a board or a chairman thereof a new election shall be held, on such day as the Governor may appoint, and new members and a chairman shall be elected in the manner hereinbefore provided in respect of first elections. Any retiring member or chairman shall be eligible for reëlection, and all proceedings in and about such new election may be had and taken accordingly.

36. If the chairman or any member of a board shall die, resign, or be disqualified or

incapable to act, his office shall be vacant, and the vacancy shall be supplied in the same manner as the original election was made, and the person so elected shall hold office in the board only for the residue of the term of his predecessor therein. Members shall resign office by letter addressed to the chairman, and the chairman by letter to the board.

37. Upon any casual vacancy being reported to the clerk in the office of a member of a board, he shall take all such proceedings as may be necessary to have an election by the class of industrial unions entitled to vote in the election of such member, and the provisions as to general elections shall apply accordingly as far as applicable. In the case of a casual vacancy in the office of chairman, the board shall meet on such day and time as they may appoint, and elect a chairman to supply such vacancy.

38. (1) The presence of the chairman and of not less than one half in number of the other members of a board shall be necessary to constitute a quorum.

(2) But in case of the illness or absence of a chairman the members may elect one of their own number to be chairman during such illness or absence.

(3) In all matters coming before any board the decision of the board shall be determined by a majority of the votes of the members present, exclusive of the chairman, except in the case of an equality of such votes, in which case only the chairman shall vote, and his vote shall decide the question.

39. If at any time the industrial unions entitled to vote shall neglect or refuse to vote at the election of a member of the board, whether in respect of a general election or a casual vacancy, or if the members of a board shall neglect or refuse to elect a chairman, the Governor may in any such case appoint such fitting persons as members of the board or as chairman as may be necessary in any case to give effect to this Act.

If, and as often as, for any reason the prescribed number of members of the board is not duly elected, or the prescribed number of members of the court is not duly recommended, as provided by the principal Act, the Governor shall, by notice in the Gazette, appoint as many fit persons to be members of the board or court as may be necessary in order to make the prescribed number. The Gazette notice of such appointment shall be conclusive evidence of the happening of the events entitling the Governor to make such appointment.^a

Every person appointed by the Governor to be member or chairman of a board shall be deemed to be elected within the meaning and for the purposes of section thirty-three of the principal Act.^b

This section shall take effect as from date of the coming into force of the principal Act.^b

40. (1) No act of a board shall be questioned on the ground of any informality in the election of a member, nor on the ground that the seat of any member is vacant, or that any supposed member thereof is incapable of being a member.

(2) In the event of the period of office of any board expiring whilst such board is engaged in the investigation of any industrial dispute, the Governor may, by notice in the Gazette, continue such board in office for any time not exceeding one month, in order to enable its members to take part in the settlement of such dispute, and on the expiration of such month an election of a new board shall be held in the manner hereinbefore provided.

41. (1) Notwithstanding the election of a board under the provisions hereinbefore contained, or where no district shall have been constituted, a special board of conciliators may be appointed from time to time to meet any case of emergency or any special case of industrial dispute. Such board shall consist of an equal number of persons, not exceeding six, all or any of whom may be members of the board of the district, and shall be chosen separately in equal numbers by employers and industrial unions of employers directly interested in such dispute and by industrial unions of workers so interested.

(2) The members of any such special board, together with a chairman, to be elected as provided in section thirty-two, shall, except in respect of the duration of their office,

^a This paragraph was inserted by the Amendment Act, 1895.

^b This paragraph was inserted by the Amendment Act, 1896.

be deemed to possess all the jurisdiction and powers of a board elected for an industrial district.

42. Any industrial dispute may be referred for settlement to a board either by or pursuant to an industrial agreement, or in the manner hereinafter provided:

(1) Any party to such a dispute may, in the prescribed manner, lodge an application with the clerk requesting that such dispute be referred for settlement to a board.

(2) The parties to such dispute may comprise:

(a) An individual employer, or several employers, and an industrial union, trade-union, or association of workers;

(b) An industrial union, trade-union, or association of employers, or an individual employer, or several employers, and an industrial union, trade-union, or association of workers, or several such unions or associations.

But the mention of the various kinds of parties shall not be deemed to interfere with any arrangement thereof that may be necessary to insure an industrial dispute being brought in a complete shape before the board; and a party or parties may be withdrawn or removed from the proceedings and another or others substituted after the reference to the board, and before any report is made, as the board shall allow or think best adapted for the purpose of giving effect to this Act, and the board may make any recommendation or give any direction for any such purpose accordingly.

(3) An employer, being a party to a reference, may appear in person, or by his agent duly appointed in writing for that purpose, or by counsel or solicitor where allowed as hereinafter provided.

(4) An association, trade-union, or industrial union, being party to a reference, may appear by its chairman or secretary, or by any number of persons (not exceeding three) appointed in writing by the chairman of the association or union for that purpose, or by counsel or solicitor where allowed as hereinafter provided.

(5) Every party appearing by a representative or representatives shall be bound by his or their acts.

(6) The clerk, on receipt of any application for a reference to a board, shall forthwith lay the same before the board mentioned in such application at a meeting of such board to be convened by him in the prescribed manner, and, subject to the provisions of this Act, shall carry out all directions of the board in order to effect a settlement of the industrial dispute referred to it.

(7) No counsel or solicitor shall be allowed to appear or be heard before a board, or any committee thereof, unless all the parties to the reference, or interested in the matter referred to a committee, shall expressly consent thereto.

When any industrial dispute has been referred for settlement to a board or the court, any employer, association, trade-union, or industrial union may, on application, if the board or court deem it equitable, be joined as party thereto at any stage of the proceedings, and on such terms as the board or the court deems equitable.^a

43. Every board shall, in such manner as it shall think fit, carefully and expeditiously inquire into and investigate any industrial dispute of which it shall have cognizance, and all matters affecting the merits of such dispute or the right settlement thereof, and, for the purposes of any such inquiry, shall have all the powers of summoning witnesses, and hearing and receiving evidence, and preserving order at any inquiry, which are by this Act conferred on the court of arbitration.

Whenever an industrial dispute involving technical questions is referred to a board or the court for settlement, two experts may be nominated, one by each party to the dispute; and such experts shall sit as assessors with and be deemed to be members of the board or court for the purposes of such dispute.^a

If there are more than two parties to any such dispute, one assessor shall be nominated by the parties whose interests are with the employers, and the other by the parties whose interests are with the workers.^a

The assessors shall be nominated in the prescribed manner and subject to the prescribed conditions.^a

Where an industrial dispute relates to employment or wages, the jurisdiction of the board or court to deal therewith shall not be voided or affected by the fact that the

^a This paragraph was inserted by the Amendment Act, 1895.

relationship of employer and employed has ceased to exist, unless it so ceased at least six weeks before the industrial dispute was first referred to the board or to the court, if there has been no prior reference to the board.^a

44. In the course of any such inquiry and investigation the board shall make all such suggestions and do all such things as shall appear to them as right and proper to be made or done for securing a fair and amicable settlement of the industrial dispute between the parties, and may adjourn the proceedings for any period the board thinks reasonable, to allow the parties to agree upon some terms of settlement; and, if no such settlement shall be arrived at, shall decide the question according to the merits and substantial justice of the case, and make their report or recommendation in writing, under the hand of the chairman of the board, which shall be delivered to and filed by the clerk in his own office with all papers and proceedings relating to the reference. Such report shall be delivered as aforesaid within two months of the day on which the application was lodged with the clerk.

45. In particular, but without limiting the general power given to a board by the last-preceding section, any board may—

(1) Refer the matters in dispute, upon such terms as the board thinks fit, to a committee of their number, consisting of an equal number of representatives of employers and workers, who shall endeavor to reconcile the parties; or

(2) Refer any matter before them to be settled by the court.

46. If the board shall report that they have been unable to bring about any settlement of any dispute referred to them satisfactory to the parties thereto, the clerk, on the receipt of such report, shall transmit a copy (certified by him) of such report to each party to the industrial dispute, whereupon any such party may, in the manner prescribed, require the clerk to refer the said dispute to the court. The clerk shall thereupon transmit all the papers and proceedings in the reference to the court.

(3) *The Court of Arbitration.*

47. There shall be one court of arbitration for the whole colony for the settlement of industrial disputes pursuant to this Act. The court shall have a seal, which shall be judicially noticed and impressions thereof admitted in evidence in all courts of judicature, and for all purposes.

48. (1) The court shall consist of three members, to be appointed by the Governor, one to be so appointed on the recommendation of the councils or a majority of the councils of the industrial associations of workers in the colony, and one to be so appointed on the recommendation of the council or a majority of the councils of the industrial associations of employers of the colony; provided, that if there shall be no industrial association of employers, then, in their stead, such recommendation as aforesaid shall be made by the industrial unions of employers.

No recommendation shall be made as to the third member, who shall be a judge of the supreme court, and shall be appointed from time to time by the Governor, and shall be president of the court, and, in case of the illness or unavoidable absence of such judge at any time, the Governor may appoint some fit person, being a supreme court judge, to be and act as president, who shall hold office only during the illness or unavoidable absence of such judge.

(2) The procedure for the purpose of giving effect to this section shall be as follows:

(a) Each such council respectively shall, within one month after being requested so to do by the Governor, submit the name of one person to the Governor, and from the names of the persons so recommended the Governor shall select two members, one from each set recommended, and appoint them to be members of the court. In the event of a majority of the councils not having made recommendations as aforesaid, or in case such majority of recommendations shall not be received by the Governor, within the period of one month after each council has been requested to submit a name as aforesaid, or in case any person so recommended shall decline to act as a member of the court, the Governor shall forthwith appoint such person as he shall think fit to be a member of the court, and such member shall be deemed to be appointed on the recommendation of said councils, as the case may be;

^a This paragraph was inserted by the Amendment Act, 1895.

(b) For the purposes of this section, the expression "council" means the governing authority of the association or industrial union entitled to vote, by whatever name such authority shall be designated;

(c) As soon as practicable after a full court shall have been appointed by the Governor, the names of the members of the court shall be notified in the Gazette.

49. (1) Every member of the court shall hold office for three years from the date of his appointment, and shall be eligible for reappointment, and any casual vacancy occurring in the membership by death, disqualification, resignation, or removal shall be supplied in the same manner as the original appointment was made; but every person so appointed to fill a casual vacancy shall hold office only for the period that his predecessor would have held office.

(2) The Governor may remove any member of the court from office who shall become bankrupt, who may be convicted of any crime the punishment of which is death or imprisonment with hard labor for a term of three years or upwards, who may become of unsound mind, or who shall be absent from three consecutive sittings of the court.

50. Before proceeding to consider any case, the members, other than the presiding judge, of the court and the officers thereof shall respectively make a statutory declaration that any evidence produced before them shall not be disclosed to any one except as provided by this Act.

The statutory declaration prescribed by section fifty of the principal Act need be taken only once, and, in the case of each member by whom it is or has been taken, it shall be deemed to apply to all evidence produced before him during his term of office.^a

51. The Governor may also from time to time appoint and remove such clerks and other officers of the court as shall be necessary, who shall hold office during pleasure, and receive such salary or other remuneration as the Governor thinks fit.

52. The court shall have jurisdiction for the settlement and determination of any industrial dispute referred to it by any board pursuant to sections forty-five or forty-six, or by reference under section eighty-two, or by petition under section eighty-three, or by industrial agreement, or by either party to an industrial dispute which has arisen in a district where no board has been constituted, and for such purpose may summon any party to an industrial dispute to appear before it.

53. Either party to the dispute may appear personally or by agent, or, with the consent of all the parties, by counsel or solicitor, and may produce before the court such witnesses, books, and documents as such party may think proper; and the court shall have power to permit any other party who has or may appear to have a common interest in the matter, and be willing to be joined in the proceedings, to be so joined on such terms as it thinks fit.

The court shall have full and exclusive jurisdiction to hear and receive evidence, on oath or otherwise, as may be allowed by law, and to hear and determine the matters in dispute in such manner as it thinks fit, and shall be at liberty to receive any such evidence as it may think fit, whether it shall be strictly legal evidence or not, with full power to adjourn the consideration of any matter, wholly or in part, for any period, or without stating any period.

Formal matters which have been proved or admitted before a board need not be again proved or admitted before the court.

54. The sittings of the court shall be held at such time and place as are from time to time fixed by the president. The sittings may be fixed either for a particular case or generally for all cases then before the court and ripe for hearing, and it shall be the duty of the clerk to give to each member of the court at least forty-eight hours' previous notice of the time and place of each sitting.^b

55. The parties to the proceedings before the court shall be those before the board, and the provisions hereinbefore contained as to the appearance of parties before a board shall apply to proceedings before the court.

At least three days' notice shall be given to each party to the proceedings of the

^a This paragraph was inserted by the Amendment Act, 1898.

^b This paragraph was inserted by the Amendment Act, 1898, in substitution for section fifty-four of the principal Act, repealed.

time and place appointed for the meeting of the court, except where a party is added to the proceedings on his own application or with his own consent.

56. The clerk may, at the request of either party, issue a summons in the prescribed manner to any person to appear and give evidence in any matter before the court, and to produce any books, deeds, papers, or writings relating to such matter, and in his possession or under his control. Such books, deeds, papers, and writings may be inspected by the members of the court for the purposes of this Act; but the information obtained therefrom shall not in any form be made public. And any person upon whom any such summons shall have been served, and to whom at the same time payment or a tender of his traveling expenses on the scale hereinafter mentioned shall have been made, and who shall neglect or refuse without sufficient cause to appear or to produce any books, deeds, papers, or writings required by such summons to be produced, shall be liable to a penalty not exceeding twenty pounds (\$97.33), or in default of payment, be imprisoned for a term not exceeding one month; but the payment of such fine or the undergoing of such imprisonment shall not exempt any person from liability to an action for disobeying such summons.

57. Where it is shown to the satisfaction of the court that certain parts of books or documents to be produced in evidence do not relate to the matter before the court, the party producing the same shall be allowed to seal up such parts.

58. Every person who shall be summoned and shall appear as a witness shall be entitled to an allowance or compensation for expenses and loss of time according to the scale for the time being in force and allowed to witnesses in civil suits under "The Magistrates' Courts Act, 1893."

59. Any member of the court, or the clerk, shall have power to administer oaths or affirmations to all witnesses who shall appear before the court, and all willful false swearing or false affirmation in any proceedings in the court under this Act shall be deemed and held to be willful perjury, and shall be indictable and punishable as such; and on any indictment it shall be sufficient to prove that the oath or affirmation was administered by such member or clerk aforesaid.

60. For the purpose of obtaining the evidence of witnesses at a distance, the court shall be deemed to have and may exercise all the powers and duties of a stipendiary magistrate under "The Magistrates' Courts Act, 1893"; and the provisions of the said Act, *mutatis mutandis*, shall be applicable to all proceedings in the court under this Act to the same extent as if the court were a magistrate's court; and every stipendiary magistrate, and every magistrate's court, and every clerk of such court, shall, for the purposes aforesaid, have and may exercise all such duties and powers in respect to any matter or thing arising under this Act as such stipendiary magistrate, or magistrate's court, or clerk respectively could do or be required to do under "The Magistrates' Courts Act, 1893."

61. The court may sit and conduct its proceedings in open court, and a majority of the members present may decide and finally determine any matters referred to them in such manner as they shall find to stand with equity and good conscience.

62. If either of the members other than the president shall neglect or fail to attend a sitting of the court without good cause shown to the satisfaction of the president, the other member present and the president may nevertheless act as fully as if all the members were present.

63. The court may be adjourned from time to time and from place to place in manner following, that is to say, (1) by the court or the president at any sitting thereof, or, if the president is absent from such sitting, then by any other member present, or, if no member is present, then by the clerk; and (2) by the president at any time before the time fixed for the sitting, and in such case the clerk shall notify the members of the court and all parties concerned.^a

64. If any person shall willfully insult any member of the court or the clerk during the sitting of the court, or shall willfully interrupt the proceedings of the court, or be guilty in any other manner of any willful contempt in the face of the court, it shall be

^a This paragraph was inserted by the Amendment Act, 1898, in substitution for section sixty-three of the principal Act, repealed.

lawful for any officer of the court, with or without the assistance of any other person, to take such offender into custody and remove him from the court, to be detained in custody until the rising of the court, and the person so offending shall be liable to a penalty not exceeding ten pounds (\$48.67) for such offense, to be recovered in a summary way as hereinafter provided.

65. If any party to proceedings before the court shall, after notice given to such party, fail to attend or be represented before the court, without good cause shown to such court, the court may proceed and act as fully in the matter before it as if such party had duly attended or been represented. Any person who is a party to any such proceedings may be required to give evidence before the court in the manner hereinbefore provided with respect to a witness.

66. The court may refer any matters referred to it from time to time to a board for investigation and report, where it shall think such board may arrive more easily at a settlement thereof, and the award of the court shall be based on the report of such board.

67. The court may at any time dismiss any matter referred to it which it shall think frivolous or trivial, and any award in such case may be limited to an order upon the party bringing the matter before the court for payment of all costs of bringing the same.

In order to enable the court the more effectually to dispose of any matter before it according to the substantial merits and equities of the case, it may, at any stage of the proceedings, of its own motion, or on the application of any of the parties, and upon such terms as it thinks fit, by order, (1) direct parties to be joined or struck out; (2) amend or waive any error or defect in the proceedings; (3) extend the time within which anything is to be done by any party; and (4) generally give such directions as are deemed necessary or expedient in the premises.^a

The powers by the last preceding section (paragraph) hereof conferred upon the court may, when the court is not sitting, be exercised by the president.^a

68. The award of the court shall be made within one month after the court shall have begun to sit for the hearing of any reference, and shall be signed by the president of the court, and have the seal of the court attached thereto, and shall be deposited in the office of the clerk of the district wherein the reference arose, and be open to inspection without charge by all persons interested therein during office hours.

69. (1) The court in its award may order any party to pay to the other party costs and expenses (including expenses of witnesses) as it may deem reasonable, and may apportion such costs between the parties or any of them as it thinks fit, and may at any time vary or alter any such order in such manner as it thinks reasonable; and such costs or any other costs ordered by the court to be paid may be recovered in any court of competent jurisdiction by the party entitled thereto under the award or order of the court as a debt due from the party liable therefor; but no costs shall in any case whatever be allowed on account of any agents, counsel, or solicitor appearing for any party.

(2) The court may also order that the whole or any portion of any such costs as aforesaid shall be taxed by the proper officer of the supreme court, and such officer shall have, in, about, and in relation to such taxation, all such power, duty, and authority as he would have in any case within the ordinary jurisdiction of the supreme court in respect of taxation of costs.

In every case where the court in its award or other order directs the payment of costs or expenses it shall fix the amount thereof, and specify the same in the award or order. Section sixty-nine of the principal Act is hereby modified in so far as it is in conflict with this section, but not further or otherwise.^a

70. The award shall be framed in such manner as shall best express the decision of the court, avoiding all technicality where possible, but shall state in clear terms what is or is not to be done or performed by each party or person affected by the decision, and may provide for an alternative course to be taken by any party to the proceedings, or by any person affected thereby; but no award shall be void or vitiated in any way because of any informality or want of form, or any non-compliance with the provisions of this Act.

^a This paragraph was inserted by the Amendment Act, 1898.

71. In all legal and other proceedings it shall be sufficient to produce the award with the seal of the court thereto, and it shall not be necessary to prove any conditions precedent entitling the court to make such award.

72. Proceedings in the court shall not be impeached or held bad for want of form, nor shall the same be removable to any court by certiorari or otherwise; and no award or proceeding of the court shall be liable to be challenged, appealed against, reviewed, quashed, or called in question by any court of judicature on any account whatsoever.

73. No proceedings in the court shall abate by reason of the death of any member of the court or of any party to such proceedings; but the same may be continued and disposed of by the successor in office of such member or legal personal representative of the party so dying.

(4) *Enforcement of Awards.*

74. Every award of the court shall specify each industrial union, trade-union, association, person, or persons on which or on whom it is intended that it shall be binding, and the period, not exceeding two years from the making thereof, during which its provisions may be enforced; and during the period within which the provisions of such award may be enforced such award shall be binding upon every industrial union, trade-union, association, or person upon which it shall be thereby declared such award shall be binding; provided, that, if the members of any industrial union or trade-union are mentioned generally in any such award, all persons who are members at the date thereof of such award, or may thereafter become so during its subsistence, shall be included in the direction given or made by the award.

75-81.^a For the purpose of enforcing any award or order of the court, whether made before or after the coming into operation of this Act, the following provisions shall apply, anything in the principal Act to the contrary notwithstanding:

(1) In so far as the award itself directs the payment of money, it shall be deemed to be an order of the court, and payment shall be enforceable accordingly under the subsequent provisions of this section relating to orders of the court.

(2) If any party or person on whom the award is binding commits any breach thereof by act or default, then, subject to the provisions of the last-preceding subsection hereof, any party to the awards may, by application in the prescribed form, apply to the court for the enforcement of the award.

(3) On the hearing of such application the court may by order either dismiss the application or impose such penalty for the breach of the award as it deems just, and in either case with or without costs.

(4) If the order imposes a penalty or costs it shall specify the parties or persons liable to pay the same, and the parties or persons to whom the same are payable;

Provided, that the amount payable by any party or person shall not exceed five hundred pounds (\$2,433);

Provided, also, that the aggregate amount of penalties and costs payable under any award shall not exceed five hundred pounds (\$2,433).

(5) For the purpose of enforcing payment of the amount payable under any order of the court (not being an order under section ten hereof), a certificate in the prescribed form, under the hand of the clerk and the seal of the court, specifying the amount payable, and the respective persons by and to whom the same is payable, may be filed in any court having jurisdiction to the extent of such amount, and shall thereupon, according to its tenor, operate and be enforceable in all respects as a final judgment of such court in its civil jurisdiction;

Provided, that, for the purpose of enforcing satisfaction of such judgment where there are two or more judgment creditors thereunder, process may be issued separately by each judgment creditor against the property of his judgment debtor in like manner as in the case of a separate and distinct judgment.

(6) All property belonging to the judgment debtor (including therein, in the case of an industrial union or trade-union, all property held by trustees for the judgment debtor) shall be available in or towards satisfaction of the judgment debt, and if the judgment debtor is an industrial union, an industrial association, or a trade-union, and

^aThe following provisions were substituted by the Amendment Act, 1898, in the place of sections seventy-five to eighty-one of the principal Act, repealed.

its property is insufficient to fully satisfy the judgment debt, its members shall be liable for the deficiency;

Provided, that no member shall be liable for more than ten pounds (\$48.67) under this subsection.

(7) For the purpose of giving full effect to the last-preceding subsection hereof, the court or the president thereof may, on the application of the judgment creditor, make such order or give such directions as are deemed necessary, and the trustees, the judgment debtor, and all other persons concerned shall obey the same.

(8) The foregoing provisions of this section are in substitution of those contained in sections seventy-five to eighty-one of the principal Act, and those sections are hereby accordingly repealed.

(9) Nothing in this section contained shall affect the validity of any proceedings which at the coming into operation of this Act are pending for the enforcement of any award or order of the court in so far as the same relates to the payment of money, and all such proceedings may either be continued under the principal Act, or be abandoned and be instituted afresh under this Act; but all proceedings pending for enforcement of any award by attachment are hereby stayed, and in lieu thereof proceedings may be instituted afresh for enforcement by penalty under this section;

Provided, that the court when disposing of such fresh proceedings shall make such order as to costs as it deems just, having regard to the costs of the proceedings abandoned or stayed as aforesaid.

PART 4.

GOVERNMENT RAILWAYS.

82. The management of government railways under "The Government Railways Act, 1887," shall be deemed to be an industry within the meaning of this Act; and, notwithstanding anything contained in the first-mentioned Act, the Railway Commissioners appointed thereunder may make an industrial agreement with the society now registered under "The Trade-Union Act, 1878," and called "The Amalgamated Society of Railway Servants," and either the said commissioners or the society may refer any industrial dispute between them to the court established under this Act; and the commissioners may give effect to any terms of an award made by such court.

The society may be registered as an industrial union under this Act; and the commissioners shall be deemed to be employers within the meaning and for the purposes of this Act.

The foregoing provisions shall apply to any reconstruction of such society in case of its dissolution, and shall extend to any similar society taking the place of such first-mentioned society and registered under this Act.

83. In case the commissioners shall neglect or refuse to agree with the said society to refer any industrial dispute to the court, the society may, by petition lodged with the clerk, refer such dispute to the court to hear and determine the same; and the court, upon such petition, and if it shall consider the dispute sufficiently grave to require it, may require the commissioners to appear before the court, and to submit the matters in dispute to its decision, and for that purpose the court shall have all such jurisdiction and authority and may do all such acts and things as may be necessary for such purpose, in accordance with the preceding provisions of this Act.

84. Notwithstanding anything in this Act contained, no board constituted under this Act shall have any jurisdiction in any matter of dispute between the commissioners and the said society.

PART 5.

MISCELLANEOUS.

85. Any notification made or purporting to be made in the Gazette by or under the authority of this Act may be given in evidence in all courts of justice, in all legal proceedings, and for any of the purposes of this Act, by the production of a copy of the Gazette, printed by the Government Printer for the time being.

86. Every instrument or document, copy or extract of an instrument or document, bearing the seal of the court, shall be received in evidence without further proof, and

the signature of the president of the court, or the chairman of any board, or of the registrar, or of the clerk of awards, shall be judicially noticed in or before any court or person or officer acting judicially or under any power or authority contained in this Act; provided, such signature be attached to some award, order, certificate, or other official document made or purporting to be made under this Act.

No proof shall be required of the handwriting or official position of any person acting in pursuance of this section.

87. The Governor from time to time may make, alter, or revoke such regulations not inconsistent with this Act as may be necessary or desirable to carry out all or any of the following purposes:

(1) Prescribing the forms of certificates or other instruments to be issued by the registrar, and of any certificate or other proceeding of any board, or any officer thereof.

(2) Prescribing the duties of clerks of awards, and of all other officers and persons acting in the execution of this Act.

(3) Providing for anything necessary to carry out the first or any subsequent election of members of boards, or on any vacancy therein, or in the office of chairman of any board, including the forms of any notice, proceeding, or instrument of any kind to be used in or in respect of any such election.

(4) Providing for the mode in which recommendations of members of the court shall be made and authenticated.

(5) Prescribing any act or thing necessary to supplement or render more effectual the provisions of this Act as to the conduct of proceedings before a board or court, or the transfer of such proceedings from one of such bodies to the other.

(6) Providing generally for any other matter or thing necessary to give effect to this Act, or to meet any particular case.

(7) Prescribing what fees shall be paid in respect of any proceedings before a board, or in the court, and the party by whom such fees shall be paid; and what fees shall be paid to the president or members of the court, or the chairman or members of the board.^a

(8) For any other purpose for which it is by this Act provided regulations may be prescribed.

Nothing in any such regulations shall supersede any fees for the time being in force in the supreme court, or any other court, in relation to any proceedings therein, otherwise than as is herein expressly provided.

All such regulations shall be published in the Gazette, and within fourteen days after the making thereof shall be laid before both houses of the General Assembly if it shall be then sitting, and, if not then sitting, then within fourteen days after the beginning of the next session of such Assembly, and shall have the force of law from the date of such publication.

88. All charges and expenses connected with the administration of this Act, exclusive of expenses incurred by industrial unions, trade-unions, or associations under Parts 1 or 2 of this Act, or of the parties and witnesses concerned in any industrial dispute referred to a board or court, shall be defrayed out of such annual appropriations as shall from time to time be made for that purpose by the General Assembly.

89. The court shall have full and exclusive jurisdiction to deal with all offenses against the principal Act, and for the purposes of this section the following provisions shall apply:

(1) Proceedings to recover the penalty by the principal Act imposed in respect of any such offense shall be taken in the court in a summary way under the summary provisions of "The Justices of the Peace Act, 1882," and these provisions shall, *mutatis mutandis*, apply in like manner as if the court were a court of justices exercising summary jurisdiction under that Act;

Provided, that in the case of an offense under section sixty-four of the principal Act (relating to contempt of court) the court, if it thinks fit so to do, may deal with it forthwith without the necessity of an information being taken or a summons being issued.

^a The clause "or the chairman or members of the board" was added by the Amendment Act, 1896.

(2) For the purpose of enforcing any order of the court made under this section a duplicate thereof shall, by the clerk of awards, be filed in the nearest office of the magistrate's court, and shall thereupon, according to its tenor, operate and be enforced in all respects as a final judgment, conviction, or order duly made by a stipendiary magistrate under the summary provisions of "The Justices of the Peace Act, 1882."

(3) The provisions of section seventy-three of the principal Act shall apply to all proceedings under this section.

(4) All penalties recovered under this section shall be paid in to the Public Account and form part of the Consolidated Fund.

(5) The foregoing provisions of this section are in substitution of those contained in section eighty-nine of the principal Act, and that section is hereby accordingly repealed.

(6) Nothing in this section contained shall apply to the breach of any award or order of the court, or to the penalty in respect of such breach.^a

90. No stamp duty shall be payable upon or in respect of any registration, certificate, agreement, award, or instrument effected, issued, or made under this Act. But nothing herein shall apply to the fees of any court payable by means of stamps.

91. Nothing in this Act shall apply to Her Majesty the Queen, or any department of her government in New Zealand, except as herein is otherwise expressly provided.

In connection with the foregoing Act the following article from the Labor Gazette of March, 1902, of the London Board of Trade, is useful, namely:

INDUSTRIAL CONCILIATION AND ARBITRATION IN NEW ZEALAND.

Amendment of Act of 1900.

The consolidating Act of 1900, in relation to industrial conciliation and arbitration in New Zealand, has been amended by an Act recently passed ("The Industrial Conciliation and Arbitration Amendment Act, 1901"). By the amending statute the provisions of the principal Act are extended to all persons employed in any manual or clerical work whatever (the former statute applying only to persons so employed "in any industry"). The new law makes important alterations in the position of trade-unions in relation to conciliation and arbitration. Under the new, as was the case under the former law, a trade-union, unless registered as an industrial union, has no voice in the constitution of the boards of conciliation or the court of arbitration provided for by the law. But whereas under the principal Act a trade-union, unless it had been registered as an industrial union, could not be a party to an industrial agreement under the law, the new Act enables a trade-union, whether so registered or not, to be a party to such an agreement. At the same time, while under the former law trade-unions, unless they were registered as industrial unions, were not bound by awards of the arbitration court, a trade-union, whether registered as an industrial union or not, may in future be bound by any such award.

It may be observed that, in his evidence before the Labor Bills Committee, to which the bill for the new Act was referred, Mr. Tregear, Secretary to the New Zealand Labor Department and Registrar of Industrial Unions, stated that the intention of the amendment made by the bill in regard to the position of trade-unions was "to prevent the trade-unions withdrawing from under the Act, and striking or in any way setting up industrial disturbances, which the industrial unions could not do."

Among other amendments, the new Act provides that, "with respect to any award in force at the coming into operation of the principal Act, the court may, upon notice to any trade-union, industrial union, industrial association, or employer within the district and engaged in the industry to which the award applies, not an original party thereto, extend such award and its provisions to such trade-union, industrial union, industrial association, or employer."

The Act also contains provisions enabling the court of arbitration to limit the operation of any award to any city, town, or district being within or part of any industrial

^aThis section was inserted by the Amendment Act, 1898.

district, and gives power to the inspectors of factories to take proceedings for the enforcement of industrial agreements, awards, and orders of the court, without its being necessary for a union or association to pass any resolution or take any ballot authorizing such proceedings. With regard to the boards of conciliation provided for by the law, it is now enacted that, where a dispute has been referred to any such board, either party may instead require the dispute to be referred directly to the court of arbitration. So far as concerns special boards of conciliation, while the principal Act provided that a special board "may, on the application of all parties, * * * be constituted from time to time to meet any case of emergency or any special case of industrial dispute," the amending statute provides that a special board of conciliation "shall, on the application of either party to the dispute, * * * be constituted from time to time to meet any case of industrial dispute."

With respect to the relations between employer and employed during the pendency of proceedings under the Acts for the settlement of an industrial dispute, the law, as now altered (the amendments introduced by the new Act being printed in italics), provides as follows:

"In every case where an industrial dispute has been referred to the board of *conciliation*, the following special provisions shall apply: (1) Until the dispute has been finally disposed of by the board of *conciliation* or the court of *arbitration*, neither the parties to the dispute nor the workers affected by the dispute shall, on account of the dispute, do or be concerned in doing, directly or indirectly, anything in the nature of a strike or lockout, or of a suspension or discontinuance of employment or work; but the relationship of employer and employed shall continue uninterrupted by the dispute or anything arising out of the dispute, or anything preliminary to the reference of the dispute and connected therewith. (2) If default is made in faithfully observing any of the foregoing provisions of this section, every union, association, employer, worker, or person committing or concerned in committing the default shall be liable to a penalty not exceeding fifty pounds. (3) The dismissal of any worker, or the discontinuance of work by any worker, pending the final disposition of an industrial dispute, shall be deemed to be a default under this section, unless the party charged with such default satisfies the court that such dismissal or discontinuance was not on account of the dispute."

In 1901 a Compulsory Industrial Arbitration Act was enacted by the Government of New South Wales, patterned, as regards most of its essentials, on the New Zealand Act hereinbefore set forth.

One very important distinction as between the two Acts, however, is that, while under the New Zealand Act it would appear that strikes or lockouts may occur (provided, that neither party to an industrial dispute sees fit to invoke the offices of the arbitration board or court), under the New South Wales Act strikes and lockouts are absolutely prohibited, at least until a reasonable time has elapsed to permit reference, to the court of arbitration, of the matter which is in dispute, and punishment in the way of heavy fines or imprisonment is visited on persons causing or instigating lockouts or strikes.

In 1894 the legislative authorities of South Australia adopted an Arbitration Act quite similar in some of its features to the New Zealand Act, although, again, it is more permissive than compulsory in its effect, provided that the State does not intervene; that is to say, that while neither party to a dispute may compel the other party, in the absence of mutual agreement, to resort to arbitration, the State may compel such arbitration where, by its properly constituted authorities, such course is deemed necessary.

In 1900 an Arbitration Act was adopted by Western Australia, patterned quite generally, again, on the New Zealand Act.

It would appear that the countries named, New Zealand, New South Wales, Western Australia, and South Australia, are the only ones in which legislative provision, thus far, has been made for arbitration in compulsory form, and, indeed, close scrutiny of the arbitration laws of those countries reveals that they are, in scarcely any case, absolutely compulsory, except, possibly, in the case of the law of New South Wales, for neither the conciliation boards, nor yet the arbitration courts, seem to have jurisdiction in any industrial dispute unless at least one of the parties to such dispute initiates proceedings before the conciliation board or arbitration court. Note, however, what is said above in relation to the authority of the State in certain cases to compel arbitration in South Australia.

On the other hand, a number of countries and many of the States of the United States have made legislative provision for voluntary arbitration in the case of disputes such as here named.

The list of such countries and States includes France, Belgium, Germany, Austria, Great Britain, Canada; United States: California, Connecticut, Illinois, Louisiana, Minnesota, Montana, Missouri, New Jersey, Ohio, Utah, Indiana, Michigan, Colorado, Iowa, Kansas, Maryland, Texas, Pennsylvania, and Wyoming.

As to the laws of France, Belgium, Germany, and Austria here referred to, they do not seem to be very comprehensive in scope, and in their operation appear to provide for little more than the settlement of small disputes between employers and employés.

Quoting from Bulletin No. 28 of the United States Department of Labor, page 461, the essential provisions of the Arbitration Law of Great Britain are in substance as follows:

Where a difference exists or is apprehended between an employer, or any class of employers, and workmen, or between different classes of workmen, the board of trade may, if they think fit, exercise all or any of the following powers, namely:

- (1) Inquire into the causes and circumstances of the difference.
- (2) Take such steps as to the board may seem expedient for the purpose of enabling the parties to the difference to meet together, by themselves or their representatives, under the presidency of a chairman mutually agreed upon or nominated by the board of trade or by some other person or body, with a view to the amicable settlement of the difference.
- (3) On the application of employers or workmen interested, and after taking into consideration the existence and adequacy of means available for conciliation in the district or trade and the circumstances of the case, appoint a person or persons to act as conciliator or as a board of conciliation.
- (4) On the application of both parties to the difference, appoint an arbitrator.

If any person is so appointed to act as conciliator, he shall inquire into the causes and circumstances of the difference by communication with the parties, and otherwise shall endeavor to bring about a settlement of the difference, and shall report his proceedings to the board of trade.

If a settlement of the difference is effected either by conciliation or by arbitration, a memorandum of the terms thereof shall be drawn up and signed by the parties or their representatives, and a copy thereof shall be delivered to and kept by the board of trade.

As regards the Canadian Arbitration Act, we quote as follows from the Labor Gazette of the Department of Labor of the Dominion of Canada, September, 1900, page 28:

VOLUNTARY CONCILIATION AND ARBITRATION.

The Conciliation Act, 1900, besides making provisions for the establishment of a Department of Labor and the publication of a Labor Gazette, has for its object the prevention and settlement of trade disputes by some form of voluntary conciliation. The sections under this head are divisible broadly into two groups, according as they relate, (a) to boards of conciliation, established either before or after the passing of the Act, and which are constituted independently of action on the part of the government; or, (b) to the powers exercisable by the government, apart from, or in connection with, such boards in the adjusting or prevention of trade disputes.

REGISTRATION OF BOARDS.

The Act contemplates the existence or formation of voluntary conciliation boards for employers and employes, such boards to have their own constitution, by-laws, and regulations, and to be governed by these in any proceedings they may undertake. It provides that such boards may be registered in a register of conciliation boards, to be kept by the Minister, the conditions of such registration being the submission, at the time of application, of copies of the constitution, by-laws, and regulations, and the furnishing, after registration, of such returns, reports of proceedings, and other documents as the Minister may reasonably require. Any registered board shall be entitled to have its name removed from the register on sending to the Minister a written application to that effect, and the Minister may, on being satisfied that a registered board has ceased to exist or to act, remove its name from the register.

METHODS OF SETTLEMENT.

For the purpose of meeting apprehended or existing difficulties three courses of action are set forth, any one of which, or all, may be exercised according to the discretion of the Minister. The nature of the application, however, places a certain limitation on this discretion:

(a) The Minister may take certain action in the way of inquiry, or arranging a conference, without application;

(b) He may appoint a conciliator on application of either of the parties;

(c) He may appoint an arbitrator on application of both parties.

In addition provision is made for the appointment, under certain conditions, of a commissioner or commissioners to hold an inquiry under oath, where, for the better settlement of the disputes, such course is deemed desirable.

The Minister may make inquiry into the causes of the difference, and, should he think fit to do so, take such steps as to him seem expedient, for the purpose of enabling the parties to the difference to meet together with a view to the amicable adjustment of the matter in dispute. His action in this particular is entirely voluntary, and may or may not be at the request of either of the parties concerned.

CONCILIATORS AND SPECIAL BOARDS.

The appointment of a conciliator can only be made on application of one of the parties to the dispute, either the employers or the workmen, and such an appointment is not a necessary result of an application, but is in the discretion of the Minister after he has taken into consideration the existence and adequacy of means available for conciliation in the district or trade, and the circumstances of the case. One person may be appointed as conciliator, or more than one as a board of conciliation. It is the

duty of the conciliator to inquire into the causes and circumstances of the difference by communication with the parties; to seek to promote conditions favorable to a settlement by endeavoring to allay distrust, remove causes of friction, promote good feeling, restore confidence, and do what he can to encourage the parties to come together and themselves effect a settlement. He must also seek to promote agreement between employers and employes, with a view to the submission of differences to conciliation or arbitration before resort is made to strikes or lockouts. The conciliator or conciliation board may, when deemed advisable, invite others to assist in the work of conciliation. If a settlement of the difference is effected either by conciliation or by arbitration, a memorandum of the terms is to be drawn up and signed by the parties or their representatives, and a copy delivered to and kept by the Minister.

ARBITRATORS AND COMMISSIONERS.

The appointment of an arbitrator or arbitrators can be made only if both parties make application, and, application having been made, the appointment is still in the discretion of the Minister.

The appointment of a commissioner or commissioners to hold an inquiry under oath, can take place only with the written consent of the parties to the difference or their representatives, and at the request of the conciliator or conciliation board, when these latter are of opinion that some misunderstanding or disagreement appears to exist as to the causes or circumstances of the difference, and where, with a view to the removal of such misunderstanding or disagreement, an inquiry under oath is desirable.

In conclusion, the Act makes provision for the Minister lending his good offices to aid in the establishment of conciliation boards where it appears to him that adequate means do not exist in the district or trade for having disputes submitted to conciliation. In such cases he may appoint any person or persons to inquire into the conditions of the district or trade, and to confer with the employers and employed, or with any local authority or board, as to the expediency of establishing a conciliation board for such district or trade.

AS TO COMPULSORY ARBITRATION.

It may be well to add a word as to the powers of the Parliament of Canada to deal with the subject of compulsory, as opposed to voluntary, arbitration, inasmuch as this point attracted some attention during the debate on the Canadian Act. The British North America Act sets forth the division of powers between the provincial legislatures and the Dominion parliament, and assigns legislation with regard to civil rights to the provinces. A compulsory Arbitration Act would affect civil rights, and, for this reason, lies beyond the jurisdiction of the Dominion parliament. It is not, with the Federal authority, a matter of choice as between voluntary and compulsory arbitration; the scope of legislation in the matter is limited to the passing of a permissive Act. For this reason the Dominion parliament has gone, so far as the nature of the Act is concerned, as far as it is lawful for it to go.

ENFORCEMENT OF THE ACT.

The carrying out of the provisions of the Conciliation Act has been assigned by the Governor-in-Council to the Hon. William Mulock, Postmaster-General, by whom the bill was introduced. The Order-in-Council constituted Mr. Mulock Minister of Labor in charge of the new department.

The Canadian Conciliation Act is modeled on the Conciliation Act of Great Britain, passed August 7, 1896. It is, in fact, with the exception of one or two additional clauses, an almost complete reproduction of that Act. In England the Board of Trade, of which the Labor Department is a branch, is charged with the carrying out of the Act; in Canada, as has been stated, its enforcement is assigned to the Minister in charge of the department.

The arbitration law of the United States above referred to is limited, in its application, to disputes between carriers and their employes

engaged in the carriage of interstate commerce, and its text is as follows:

UNITED STATES.

(Public Laws, 1898.)

Chap. 370. An Act concerning carriers engaged in interstate commerce and their employes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the provisions of this Act shall apply to any common carrier or carriers and their officers, agents, and employés, except masters of vessels and seamen, as defined in section forty-six hundred and twelve, Revised Statutes of the United States, engaged in the transportation of passengers or property wholly by railroad, or partly by railroad and partly by water, for continuous carriage or shipment, from one State or Territory of the United States, or the District of Columbia, to any other State or Territory of the United States, or the District of Columbia, or from any place in the United States to an adjacent foreign country, or from any place in the United States through a foreign country to any other place in the United States.

The term "railroad" as used in this Act shall include all bridges and ferries used or operated in connection with any railroad, and also all the road in use by any corporation operating a railroad, whether owned or operated under a contract, agreement, or lease; and the term "transportation" shall include all instrumentalities of shipment or carriage.

The term "employés" as used in this Act shall include all persons actually engaged in any capacity in train operation or train service of any description, and notwithstanding that the cars upon or in which they are employed may be held and operated by the carrier under lease or other contract; provided, however, that this Act shall not be held to apply to employés of street railroads, and shall apply only to employés engaged in railroad train service. In every such case the carrier shall be responsible for the acts and defaults of such employés in the same manner and to the same extent as if said cars were owned by it, and said employés directly employed by it, and any provisions to the contrary of any such lease or other contract shall be binding only as between the parties thereto, and shall not affect the obligations of said carrier either to the public or the private parties concerned.

2. Whenever a controversy concerning wages, hours of labor, or conditions of employment shall arise between a carrier subject to this Act and the employés of such carrier, seriously interrupting or threatening to interrupt the business of said carrier, the Chairman of the Interstate Commerce Commission and Commissioner of Labor shall, upon the request of either party to the controversy, with all practicable expedition, put themselves in communication with the parties to such controversy, and shall use their best efforts, by mediation and conciliation, to amicably settle the same; and if such efforts shall be unsuccessful, shall at once endeavor to bring about an arbitration of said controversy in accordance with the provisions of this Act.

3. Whenever a controversy shall arise between a carrier subject to this Act and the employés of such carrier which can not be settled by mediation and conciliation in the manner provided in the preceding section, said controversy may be submitted to the arbitration of a board of three persons, who shall be chosen in the manner following: One shall be named by the carrier or employer directly interested; the other shall be named by the labor organization to which the employés directly interested belong, or, if they belong to more than one, by that one of them which specially represents employés of the same grade and class and engaged in service of the same nature as said employés so directly interested; provided, however, that when a controversy involves and affects the interests of two or more classes and grades of employés belonging to different labor organizations, such arbitrator shall be agreed upon and designated by the current action of all such labor organizations; and in case where the majority of such employés are not members of any labor organization, said employés may by a majority vote select a committee of their own number, which committee shall have the right to select the arbitrator on behalf of said employés. The two thus chosen shall select the third commissioner of arbitration; but, in the event of their failure to name

such arbitrator within five days after their first meeting, the third arbitrator shall be named by the commissioners named in the preceding section. A majority of said arbitrators shall be competent to make a valid and binding award under the provisions hereof. The submission shall be in writing, shall be signed by the employer and by the labor organization representing the employes, shall specify the time and place of meeting of said board of arbitration, shall state the questions to be decided, and shall contain appropriate provisions by which the respective parties shall stipulate, as follows:

First—That the board of arbitration shall commence their hearings within ten days from the appointment of the third arbitrator, and shall find and file their award, as provided in this section, within thirty days from the date of the appointment of the third arbitrator; and that pending the arbitration the status existing immediately prior to the dispute shall not be changed; provided, that no employe shall be compelled to render personal service without his consent.

Second—That the award and the papers and proceedings, including the testimony relating thereto certified under the hands of the arbitrators, and which shall have the force and effect of a bill of exceptions, shall be filed in the clerk's office of the circuit court of the United States for the district wherein the controversy arises or the arbitration is entered into, and shall be final and conclusive upon both parties, unless set aside for error of law apparent on the record.

Third—That the respective parties to the award will each faithfully execute the same, and that the same may be specifically enforced in equity so far as the powers of a court of equity permit; provided, that no injunction or other legal process shall be issued which shall compel the performance by any laborer against his will of a contract for personal labor or service.

Fourth—That employes dissatisfied with the award shall not, by reason of such dissatisfaction, quit the service of the employer before the expiration of three months from and after the making of such award, without giving thirty days' notice in writing of their intention so to quit. Nor shall the employer dissatisfied with such award dismiss any employe or employes, on account of such dissatisfaction, before the expiration of three months from and after the making of such award, without giving thirty days' notice in writing of his intention so to discharge.

Fifth—That said award shall continue in force as between the parties thereto for the period of one year after the same shall go into practical operation, and no new arbitration upon the same subject between the same employer and the same class of employes shall be had until the expiration of said one year if the award is not set aside as provided in section four. That as to individual employes not belonging to the labor organization or organizations which shall enter into the arbitration, the said award made therein shall not be binding, unless the said individual employes shall give assent in writing to become parties to said arbitration.

4. The award being filed in the clerk's office of a circuit court of the United States, as hereinbefore provided, shall go into practical operation, and judgment shall be entered thereon accordingly at the expiration of ten days from such filing, unless within such ten days either party shall file exceptions thereto for matter of law apparent upon the record, in which case said award shall go into practical operation, and judgment be entered accordingly when such exceptions shall have been finally disposed of either by said circuit court or on appeal therefrom.

At the expiration of ten days from the decision of the circuit court upon exceptions taken to said award, as aforesaid, judgment shall be entered in accordance with said decision, unless during said ten days either party shall appeal therefrom to the circuit court of appeals. In such case only such portion of the record shall be transmitted to the appellate court as is necessary to the proper understanding and consideration of the questions of law presented by said exceptions and to be decided.

The determination of said circuit court of appeals upon said questions shall be final, and being certified by the clerk thereof to said circuit court, judgment pursuant thereto shall thereupon be entered by said circuit court.

If exceptions to an award are finally sustained, judgment shall be entered setting aside the award. But in such case the parties may agree upon a judgment to be entered

disposing of the subject-matter of the controversy, which judgment, when entered, shall have the same force and effect as judgment entered upon an award.

5. For the purposes of this Act the arbitrators herein provided for, or either of them, shall have power to administer oaths and affirmations, sign subpoenas, require the attendance and testimony of witnesses, and the production of such books, papers, contracts, agreements, and documents material to a just determination of the matters under investigation as may be ordered by the court; and may invoke the aid of the United States courts to compel witnesses to attend and testify and to produce such books, papers, contracts, agreements, and documents to the same extent and under the same conditions and penalties as is provided for in the Act to regulate commerce, approved February fourth, eighteen hundred and eighty-seven, and the amendments thereto.

6. Every agreement of arbitration under this Act shall be acknowledged by the parties before a notary public or clerk of a district or circuit court of the United States, and when so acknowledged a copy of the same shall be transmitted to the chairman of the Interstate Commerce Commission, who shall file the same in the office of said commission.

Any agreement of arbitration which shall be entered into conforming to this Act, except that it shall be executed by employes individually instead of by a labor organization as their representative, shall, when duly acknowledged as herein provided, be transmitted to the chairman of the Interstate Commerce Commission, who shall cause a notice in writing to be served upon the arbitrators, fixing a time and place for a meeting of said board, which shall be within fifteen days from the execution of said agreement of arbitration; provided, however, that the said chairman of the Interstate Commerce Commission shall decline to call a meeting of arbitrators under such agreement unless it be shown to his satisfaction that the employes signing the submission represent or include a majority of all employes in the service of the same employer and of the same grade and class, and that an award pursuant to said submission can justly be regarded as binding upon all such employes.

7. During the pendency of arbitration under this Act it shall not be lawful for the employer, party to such arbitration, to discharge the employes, parties thereto, except for inefficiency, violation of law, or neglect of duty; nor for the organization representing such employes to order, nor for the employes to unite in, aid, or abet, strikes against said employer; nor, during a period of three months after an award under such arbitration, for such employer to discharge any such employes, except for the causes aforesaid, without giving thirty days' written notice of an intent so to discharge; nor for any of such employes, during a like period, to quit the services of said employer without just cause, without giving to said employer thirty days' written notice of an intent so to do; nor for such organization representing such employes to order, counsel, or advise otherwise. Any violation of this section shall subject the offending party to liability for damages; provided, that nothing herein contained shall be construed to prevent any employer, party to such arbitration, from reducing the number of its or his employes whenever in its or his judgment business necessities require such reduction.

8. In every incorporation under the provisions of chapter five hundred and sixty-seven of the United States statutes of eighteen hundred and eighty-five and eighteen hundred and eighty-six it must be provided in the articles of incorporation and in the constitution, rules, and by-laws that a member shall cease to be such by participating in or by instigating force or violence against persons or property during strikes, lockouts, or boycotts, or by seeking to prevent others from working, through violence, threats, or intimidations. Members of such incorporations shall not be personally liable for the acts, debts, or obligations of the corporations, nor shall such corporations be liable for the acts of members or others in violation of law; and such corporations may appear by designated representatives before the board created by this Act, or in any suits or proceedings for or against such corporations or their members in any of the federal courts.

9. Whenever receivers appointed by federal courts are in the possession and control of railroads, the employes upon such railroads shall have the right to be heard in such

courts upon all questions affecting the terms and conditions of their employment, through the officers and representatives of their associations, whether incorporated or unincorporated, and no reduction of wages shall be made by such receivers without the authority of the court therefor upon notice to such employes, said notice to be not less than twenty days before the hearing upon the receiver's petition or application, and to be posted upon all customary bulletin boards along or upon the railway operated by such receiver or receivers.

10. Any employer subject to the provisions of this Act, and any officer, agent, or receiver of such employer who shall require any employé, or any person seeking employment, as a condition of such employment, to enter into an agreement, either written or verbal, not to become or remain a member of any labor corporation, association, or organization; or shall threaten any employé with loss of employment, or shall unjustly discriminate against any employé because of his membership in such labor corporation, association, or organization; or who shall require any employé or any person seeking employment, as a condition of such employment, to enter into a contract whereby such employé or applicant for employment shall agree to contribute to any fund for charitable, social, or beneficial purposes; to release such employer from legal liability for any personal injury by reason of any benefit received from such fund beyond the proportion of the benefit arising from the employer's contribution to such fund; or who shall, after having discharged an employé, attempt to conspire to prevent such employé from obtaining employment, or who shall, after the quitting of an employé, attempt or conspire to prevent such employé from obtaining employment, is hereby declared to be guilty of a misdemeanor, and, upon conviction thereof in any court in the United States of competent jurisdiction in the district in which such offense was committed, shall be punished for each offense by a fine of not less than one hundred dollars and not more than one thousand dollars.

11. Each member of said board of arbitration shall receive a compensation of ten dollars per day for the time he is actually employed, and his traveling and other necessary expenses; and a sum of money sufficient to pay the same, together with the traveling and other necessary and proper expenses of any conciliation or arbitration had hereunder, not to exceed ten thousand dollars in any one year, to be approved by the chairman of the Interstate Commerce Commission and audited by the proper accounting officers of the treasury, is hereby appropriated for the fiscal years ending June thirtieth, eighteen hundred and ninety-eight, and June thirtieth, eighteen hundred and ninety-nine, out of any money in the treasury not otherwise appropriated.

12. The Act to create boards of arbitration or commissions for settling controversies and differences between railroad corporations and other common carriers engaged in interstate or territorial transportation of property or persons and their employes, approved October first, eighteen hundred and eighty-eight, is hereby repealed.

Approved June 1, 1898.

As regards arbitration legislation in the States of the United States, New York and Massachusetts seem to be the pioneers, such legislation having been enacted in those States as early as the year 1886.

In the several States hereinbefore enumerated, the arbitration laws named are in substance, respectively, as follows:

NEW YORK.

By Chapter 415 of the laws of 1897, it is provided that there shall continue to be a State Board of Mediation and Arbitration consisting of three competent persons, to be known as arbitrators, who shall be appointed by the Governor, with the advice and consent of the Senate, and shall hold office each for a term of three years and receive as annual salary, each, the sum of three thousand dollars.

One member of the board shall belong to the political party casting the most and one to the party casting the next highest number of votes for Governor, at the last gubernatorial election; the third member shall be a member of an incorporated labor

organization of the State. Two members shall constitute a quorum for the transaction of business, and shall hold meetings at any time or place in the State.

Investigations ordered by the board may be held and taken before any member of the board, but a decision rendered in such case shall not be deemed conclusive until approved by the board. The board shall appoint a secretary, whose term of office shall be three years, and who shall keep a record of the proceedings of the board, and shall have charge of all documents and testimony forwarded by local boards of arbitration, and perform such other duties as the board may prescribe. The secretary, under the direction of the board, may issue subpoenas, administer oaths in all cases before the board, and call for and examine books, papers, etc., of any parties to the controversy. He shall receive an annual salary of two thousand dollars.

A controversy between an employer and his employes may be submitted to the board for determination and settlement. The submission shall be in writing and shall contain a statement of the controversy and the cause thereof and an agreement to abide by the determination of the board, and to continue, during the investigation, on in business or at work without lockout or strike. Upon said submission the board shall examine the matters in controversy, and for such purpose may subpoena witnesses. Such witnesses shall be allowed the same fees as are allowed in courts of record. The decision of the board must be rendered within ten days after the completion of the investigation.

Whenever a strike or lockout exists or is seriously threatened, the board shall go, as soon as practicable, to the locality thereof and endeavor by mediation to effect a settlement to the controversy. It may inquire into the cause thereof, and for that purpose has the same power as in the case of a controversy submitted to it for arbitration. Within ten days after the completion of its examination the board shall render a decision, which shall show clearly the nature of the controversy, and the points disposed of by it, and make a written report of their findings of fact, and their recommendations, to each party to the controversy. Every decision and report shall be filed in the office of the board and a copy of the same served on each party to the controversy, and a copy shall be filed in the office of the clerk of the county in which the controversy arose. The board shall make an annual report to the Legislature and shall include therein such statements and explanations as will disclose its actual work, the facts relating to each controversy considered by it, and its decision thereon, together with such suggestions as to legislation as may seem to it likely to be conducive of harmony between employers and employes.

A controversy between an employer and employes may be submitted to a local board of arbitrators, consisting of three persons, for hearing or settlement. When the employes concerned are members of good standing of some labor organization represented in a central body, one of such arbitrators may be appointed by such central body, and one by the employer. The two so designated shall appoint the third member, who shall be chairman of the local board. If the employes concerned are members of good standing in a labor organization which is not represented in the central body, the organization of which they are members may, by a majority thereof, at a meeting duly called for that purpose, designate one arbitrator for such board. Each member shall, before entering upon his duties, sign and consent to act and subscribe an oath to faithfully and impartially discharge his duties as such arbitrator, which consent and oath shall be filed in the clerk's office in the county in which the controversy arose. One of the members of such board shall act as its secretary, and notice of the time and place of hearing shall be given to the parties to the controversy. The board, through its chairman, may subpoena witnesses and compel their attendance, and the board may make and enforce rules for its government and the transaction of the business before it and fix its sessions.

The board shall, within ten days after the close of the hearing, render its decision, giving such details as will clearly show the nature of the controversy, and the questions decided by it, and such decision shall be a settlement of the matters submitted to such arbitrators, unless ten days thereafter an appeal is taken therefrom to the State Board of Mediation and Arbitration. One copy of the decision shall be filed in the office of the clerk of the county or counties where the controversy arose, and one copy shall be transmitted to the secretary of the State Board of Mediation and Arbitration.

The State board here named shall hear, consider, and investigate every appeal to it from a local board of arbitrators, and its decisions shall be in writing, and a copy thereof filed in the clerk's office of the county where the controversy arose, and a duplicate copy shall be served on each party to the controversy. Such decision shall be final and conclusive upon all parties to the arbitration.

MASSACHUSETTS.

By an Act of the Legislature of this State, adopted in 1886, and as amended in 1892 (Statutes of 1892, Chapter 382), it is provided that the Governor, with the advice and consent of the Council, shall appoint three competent persons to serve as a State Board of Arbitration and Conciliation, as hereinafter provided. One of such persons shall be an employer or selected from some association representing employers of labor, one shall be selected from some labor organization, and not an employer of labor, the third shall be appointed upon the recommendation of the other two; provided, that if the two appointed do not agree on the third man at the expiration of thirty days, he shall be appointed by the Governor. The appointees here named shall hold office for one year or until their successors are appointed, and by later further provision, the regular term of office of a member of the board is made to be three years, or until his successor is appointed.

Each member of the board, before entering upon his duties of office, shall be sworn to faithfully discharge the same. One member of the board shall be chosen as its chairman. The board may appoint and remove a clerk of the board, and he may receive such salary as may be allowed by the board, not exceeding twelve hundred dollars per annum. The board may establish such rules of procedure, subject to the approval of the Governor and Council, as are necessary for the transaction of its business.

In case of a controversy not involving questions which may be made the subject of a suit at law, or bill in equity, between an employer employing not less than twenty-five persons in the same general line of business, and his or its employes, the board shall upon application, as hereinafter provided for, forthwith visit the locality of the controversy, make careful inquiries into the cause thereof, hear all persons interested therein who may come before it, advise the respective parties what ought to be done or submitted to, by either or both, to adjust said controversy, and make its written decision therein. The decision shall at once be made public, and shall be recorded on the books of record to be kept by the secretary of the board, and a short statement thereof shall be published in the annual report hereinafter provided for. The said board shall cause a copy thereof to be filed with the clerk of the city or town where the business affected is carried on. The application here named shall be signed by the employer or a majority of his or its employes in the department of business in which the controversy exists, or by both parties, and shall contain a concise statement of the grievances complained of and a promise to continue on in business or at work, without lockout or strike, until the decision of the board is rendered, if such decision be made within three weeks of the date of the filing of the application.

Upon receipt of an application such as here named, the secretary of the board shall cause public notice to be given of the time and place for the hearing thereof; provided, that such public notice need not be given when both parties to the controversy join in the application and in writing request that such notice be not given. After notice given, as aforesaid, each of the parties to the controversy may, respectively, in writing, nominate, and the board may appoint, one person to act in the case as expert assistant to the board. The two persons so appointed shall be skilled in and conversant with the board or business concerning which the dispute has arisen, and it shall be their duty, under the direction of the board, to obtain and report to the board information concerning the wages paid, the methods and grades of work prevailing in the manufacturing establishments similar to that in which the matters in dispute have arisen. The said assistants shall be sworn to faithfully discharge their duties, and they shall be entitled to receive from the treasury of the commonwealth, such compensation as will be allowed by the board, together with all other necessary and traveling expenses.

The board may appoint other additional expert assistant, or assistants, as it may deem necessary. Should the petitioner or petitioners fail to perform the promise made

in the application, the board shall proceed no further thereupon without the written consent of the adverse parties. The board shall have power to summon as witnesses operatives in the department of business affected by the controversy, and to examine them under oath, and to require the production of books containing the record of wages paid.

The decision of the board shall be binding upon the parties who join in said application for six months, or until either party has given the other notice in writing of his intention not to be bound by the same at the expiration of sixty days therefrom. Parties to any controversy, such as here described, may submit the same in writing to a local board of arbitration; such board may either be mutually agreed upon, or the employer may designate one member thereof, the employés another, and the two so designated may choose a third, who shall be chairman of the board. The board shall, in respect to the matters referred to it, have and exercise all the powers which the State board might have and exercise.

The jurisdiction of the board shall be exclusive in respect to the matters submitted to it, but it may ask and receive the advice of the State board. The decision of the local board shall be rendered within ten days after the closing of any hearing held by it, and shall be filed with the clerk of the city or town in which the controversy arose, and a copy shall be forwarded to the State board. Each member of the said local board shall be entitled to receive from the treasury of the city or town in which the controversy existed, subject to approval by the mayor of such city, the sum of three dollars for each day of actual service, not exceeding ten days for any one arbitration.

In case of a strike or lockout threatened or existing in any city or town of the commonwealth, and involving an employer employing not less than twenty-five persons in the same general line of business, and his or its employés, the State board may offer its services and endeavor, by mediation, to effect an amicable settlement, or to persuade the parties to submit the matter in dispute to a local board of arbitration and conciliation, such as above provided for, or to a State board, and the State board may investigate the cause or causes of the controversy, ascertain which party is mainly responsible therefor, and may take and publish a report of its findings, as such cause or causes, and assign such responsibility. The board shall have the same powers for the foregoing purposes as are given to it in case of a submission of a controversy to it, as hereinbefore named. Witnesses summoned by the said board shall be paid the sum of fifty cents for each attendance, and the further sum of twenty-five cents for each hour of attendance in excess of two hours, and shall be allowed five cents a mile for each mile traveled to the place where the board is in session.

The members of the board shall receive, each, a salary of two thousand dollars per year, to be paid out of the treasury of the commonwealth, and their necessary traveling and other expenses.

CONNECTICUT.

The Governor shall, biennially, with the advice and consent of the Senate, appoint a State Board of Mediation and Arbitration, to consist of three competent persons, each of whom shall hold office for two years. One of such persons shall be selected from the party which at the last general election cast the greatest number of votes for Governor of the State, and one of the said persons shall be selected from the party which, at the last general election, cast the next greatest number of votes for Governor of this State. The third of said persons shall be selected from among the membership of a bona fide labor organization of this State. Said board to select one of its number to act as clerk and secretary.

In case of an industrial dispute between employer and employés, the parties, if they so elect, may submit the dispute in writing to the arbitrament of the board, promising and agreeing to continue in business or at work, without strike or lockout, until the decision of the board is rendered; provided, that such decision must be rendered within ten days after the completion of the investigation. Being thus appealed to, the board shall investigate the controversy, having authority in connection therewith to administer oaths and issue subpoenas for witnesses, and shall, within ten days after such investigation is terminated, render a decision in writing signed by the members of the board or a majority of such members.

Should it come to the knowledge of the board that a strike or lockout has occurred, or is seriously threatened in any part of the State, it shall be its duty to proceed to the locality, enter into communication with the parties to the controversy, and endeavor to effect an amicable settlement thereof.

The board shall make report annually to the Governor of the State as regards its acts and work, and the members of the board shall receive as compensation five dollars per day, each, and expenses for actual services rendered under the provisions of this Act.

ILLINOIS.

The Governor, by and with the advice of the Senate, shall appoint three persons, not more than two of whom shall belong to the same political party, who shall be styled a State Board of Arbitration. One only of such persons shall be an employer of labor, and one only shall be an employé and shall be selected from some labor organization.

The duration of the term of office of each respective member of the board shall be three years.

In case of any controversy or difference between an employer and his employés, not involving questions which may be the subject of an action at law or bill in equity, the board shall, upon an application signed by the employer, party to such controversy, or by a majority of his employés, or by both parties, as soon thereafter as practicable, investigate carefully the questions involved in the controversy and advise the respective parties thereto what, if anything, ought to be done or submitted to by both to adjust said dispute, and make a written decision thereof, which decision shall be made public.

The application made, as hereinsaid, must contain a promise to continue on in business or at work, without any lockout or strike, until the decision of the board is given; provided, it shall be made within three weeks after the date of the filing of the application.

The board has power to summon witnesses and to administer oaths.

Any decision of the board, in the case of any controversy, shall be binding for six months on the parties who join in making the application hereinsaid, or until such time as either party has given the other notice in writing of his or their intention not to be bound by the same after the expiration of sixty days therefrom.

In case of failure on the part of any employer or employé who has joined in an application to the board, as hereinbefore named, to abide by the decision of the board in regard to the controversy duly referred, any party aggrieved may, by verified petition to a circuit or county court, or judge thereof, for an order from the court or judge requiring the party complained of to show cause to the court, within ten days, why the decision has not been complied with, and upon return made to the order, the court or the judge thereof shall hear and determine the questions presented, and may secure compliance with said decision on the part of the party complained of, by punishing such party as if for contempt of court; such punishment, however, in no case to extend to imprisonment.

Whenever two or more employers engaged in the same general line of business, and employing, in the aggregate, not less than twenty-five persons, and having a common difference with their respective employés, shall, coöperating together, make application for arbitration; or whenever such application is made by the employés of two or more employers engaged in the same line of business, such employés, not being less than twenty-five in the aggregate number, and having a common difference with their employers; or whenever such application is made jointly by employers and employés, in such case the board shall have the same powers and proceed in the same manner as if the application had been made by one employer or by both.

If it come to the knowledge of the board that a strike or lockout is seriously threatened in the State involving an employer and his employés, if the number of said employés be not less than twenty-five persons, it shall be the duty of the board to put itself into communication with such employer or employés and endeavor by mediation to effect an amicable settlement between them, or endeavor to persuade them to submit the matters in dispute to the board.

It is made the duty of the mayor of the city or the president of every incorporated town or village, whenever a strike or lockout involving more than twenty-five employés

exists or is threatened, within or near such city or town or village, to communicate such fact to the board, and it is also made the duty of the president or the chief executive officer of every labor organization, in case of an actual or threatened strike or lockout involving the members of the organization, to immediately communicate the fact of such strike or lockout to the board, with proper information.

The members of the board, respectively, receive a salary of fifteen hundred dollars a year and necessary traveling expenses.

LOUISIANA.

The Governor, with the advice and consent of the Senate, shall appoint five competent persons to serve as a Board of Arbitration and Conciliation, two of whom shall be employers selected or recommended by some association or board representing employers of labor; two of them shall be employ  s selected or recommended by the various labor organizations and not employers of labor; the fifth shall be appointed upon the recommendation of the other four; provided, that if the four appointed do not agree upon the fifth man within thirty days, he shall thereafter be appointed by the Governor; and provided also, that if employers and employ  s do not, within thirty days, make recommendations or selections as aforesaid, the Governor shall appoint the full board in accordance with the spirit and intent of the Act.

Two of the said members shall be appointed for two years, two for three years, and the fifth member for four years, and thereafter all appointments shall be for four years, or until their successors are appointed in the manner above provided.

The board shall organize by naming one of their number as chairman, and another as secretary, and shall establish rules of procedure.

In case of controversy or difference not involving questions which may be the subject of an action at law between an employer employing not less than twenty persons in the same general line of business, and his or its employ  s, the board shall, upon application as hereinafter mentioned, as soon as practicable, visit the locality of the dispute, making careful inquiries thereof, hear all persons interested who may come before it, and advise the respective parties as to what shall or should be done by either or both of them to adjust said dispute.

The said application can be made by either or both of the parties to the controversy, and shall be signed in the respective instances by the employer or by a majority of the employ  s in the department of the business in which the controversy exists.

The application shall contain a concise statement of the grievances, and contain a promise to continue on in business or at work in the same manner as at the time of the application, without any lockout or strike, until the decision of the said board is rendered; provided, that said decision shall be made within ten days of the filing of said application.

Receiving an application as abovesaid, the secretary of the board shall give public notice of the time and place for the hearing of the controversy, except that such notice need not be given when both parties join in the application, and include therein a written request that such notice be not given.

Should the applicants fail to perform the promise made in the application, the board shall discontinue proceedings in the case until such applicants have complied with every order and requirement of the board.

The board has power to summon as witnesses operatives in the departments of business affected, and any person who keeps the record of the wages earned in those departments, and examine under oath and request the production of books containing the record of wages earned or paid.

Should the board, in any case, after effort duly made in accordance with the provisions of the Act in question, fail to bring about an adjustment, it shall immediately make out a written report, which shall at once be made public, shall be recorded on proper books of record and published in the annual report of the board, and a copy thereof filed with the clerk of the court of the city or parish in which the controversy occurred, and in case it appears to the mayor of the city or the judge of any district court in any parish, other than the parish of Orleans, that a strike or lockout is seriously threatened or actually occurring, the mayor of such city or the judge of such district court shall notify the said board herein named of the fact.

Receiving such knowledge, or otherwise becoming aware that such lockout or strike is threatened or occurring, the board shall put itself in communication, as soon as possible, with such employer and employés and endeavor to effect an amicable settlement between them, or persuade them to submit the matters in dispute to the board.

Whether the said matters be thus submitted or not, the board shall investigate the cause or causes of the controversy, ascertain which party is responsible or blame-worthy for the existence or continuance of the same, and shall make and publish a report of its findings in such regard. The board shall make a biennial report to the Governor and Legislature of its work, etc.

The members of the board shall each be paid five dollars a day for each day of actual service, with other necessary and traveling expenses.

MINNESOTA.

Within thirty days after the passage of the Act (after April 25, 1895), the Governor, with the advice and consent of the Senate, shall appoint a State Board of Arbitration and Conciliation, consisting of three competent persons, who shall hold office until their successors are appointed, and on the first Monday in January, eighteen hundred and ninety-seven, and thereafter biennially, with like advice and consent, shall appoint said board, which shall be constituted as follows: One shall be an employer of labor, one shall be a member of a bona fide trades-union and not an employer of labor, and chosen from a list submitted by one or more trades of the State, and the third shall be appointed upon the recommendation of the other two, and shall be an employé or employer of skilled labor; provided, that if the two first appointed do not agree on nominating one or two persons to act as third member within ten days, the appointment of the third member shall be made by the Governor without such recommendation.

In case of vacancy on the board, the Governor shall in the same manner appoint some one possessing the same qualifications to serve out the unexpired term, and he may also remove any member of the board.

The board shall, after its appointment, organize by selecting one of its members as president, and another as secretary, and shall establish rules of procedure.

In cases of controversy or difference between an employer employing not less than ten persons in the same line of business and his or its employés, the board shall, upon application as hereinafter provided for, as soon as possible, visit the locality of the dispute, make careful inquiry into the cause thereof, hear all persons interested who may come before it, and advise the respective parties as to what, if anything, shall or should be done to adjust such dispute, and within ten days after completing such inquiry, render its written decision therein, which decision shall forthwith be made public and a synopsis of the same be published in the biennial report of the board; also a copy of the said decision shall be filed with the clerk of the district court of the county where the controversy occurs, and the application herein named shall be in writing and signed by one or both parties to the controversy. Within three days after its receipt the secretary of the board shall give public notice of the time and place where the hearing of the controversy shall be had, unless both parties to the controversy join in the application and file written request that such public notice be not given.

The board shall have the power to summon as a witness any person who keeps a record of wages earned by those who are parties to the controversy, and may require the production of books containing the record of such wages.

In case the application herein named is made by both parties, the decision of the board in the case shall provide that the same shall be binding upon the parties concerned for six months thereafter, or until sixty days after either party has given the other notice in writing of his or their intention not to be bound by it. Such notice may be given to the employés concerned by posting the same in three conspicuous places in the place where they are employed.

In case knowledge comes to the board through the mayor of the city or the county commissioners, or through the president of the chamber of commerce, or through the president of the central labor council, or through any five reputable citizens, that a strike or lockout is threatened or occurring in the State, involving an employer employing not less than ten persons in the same general line of business, and his or its employés, the

board shall, within three days thereafter, upon communication with such employer and employés, endeavor to effect an amicable settlement between them, or to persuade them to submit the dispute to a local board of arbitration and conciliation as herein-after named, or to said State board, to investigate the cause or causes of the controversy and ascertain which party thereto is mainly responsible for the continuance of the same, and publish a report assigning the responsibility.

Parties to any controversy or difference, such as herein named, may submit the same in writing to a local board of arbitration and conciliation, which may be either mutually agreed upon or may be composed of one member appointed by the employer, one by the employés, and the third by the two members so designated; said third member to be the chairman of the board.

Each arbitrator so selected shall sign a contract to act as such and shall subscribe an oath to faithfully and impartially perform his duties, which oath shall be filed in the office of the clerk of the district court of such county where the dispute arose.

Such local board shall, in respect to the matters submitted to it, have and exercise all the powers which the State board herein named may have or exercise, and its decisions shall have whatever binding effect may be agreed to by the parties to the controversy in the written statements.

Vacancies in such local boards shall be filled in the same manner in which regular appointments are made.

The jurisdiction of the local board is conclusive in respect to matters submitted to them, but they may ask and receive and are entitled to have and receive assistance from the State board. Decisions of local boards shall be rendered within ten days after the closing of any hearing held before them. A copy of the decision in each respective case shall be filed with the secretary of the State board.

Each member of the State board shall receive as compensation, five dollars, including mileage, for each and every day actually in the performance of his duties as member of the board. Such board shall make a biennial report to the Legislature, including everything such as statements and facts as shall disclose the actual work of the board, and suggestions as regards legislation such as may seem to be conducive to harmony between employers and employés.

MONTANA.

By the Political Code of Montana, Section 3330, *et sequentes*, it is provided that a State Board of Arbitration and Conciliation, consisting of three members, whose term of office is two years and thereafter until their successors are appointed and qualified, must be appointed by the Governor, with the advice and consent of the Senate. The Governor may remove any member of the board, and in case of vacancies shall appoint persons to fill out the unexpired time.

One member of the board must be an employer selected from some association representing employers of labor, one must be a laborer, or selected from some labor organization and not an employer of labor; the third member must be a disinterested citizen.

The board shall organize by choosing one of its members as chairman, and it may appoint and remove a clerk of the board, and establish rules of procedure subject to the approval of the Governor.

In case of controversy between an employer employing twenty or more persons in the same general line of business in the State, and his employés, the board must, upon application, as hereinafter said, investigate the cause of the controversy, hear all interested persons who may come before it for such purpose, advise the parties what, if anything, they should do to adjust the dispute, and render a written decision thereof, which decision must be made public, be recorded in a book kept by the clerk of the board, and be published in the annual report of the board. A copy of such decision shall also be filed with the clerk of the county where the controversy arose.

The application abovesaid must be signed by the employer, or by a majority of his employés in the department of the business in which the controversy exists, and shall contain a concise statement of the grievances complained of, a promise to continue on

in business or at work, without lockout or strike, until the decision of the board is rendered; provided, that such decision is made within four weeks subsequent to the date of filing of the application.

Upon receipt of such application, the secretary of the board shall give public notice of the time and place of the hearing thereof, except that when both parties to the controversy join in the application and request, in writing, that no public notice be given, such notice need not be given.

After notice given and upon nomination by the respective parties, the board may appoint one person in behalf of each party to act as expert assistants to the board; these experts to obtain and report to the board information concerning the wages paid, hours of labor worked, and the methods of work prevailing in manufacturing establishments or in other industries or occupations within the State similar in character to that in which the matters in dispute have arisen.

The board shall have power to summon as witness in the case any operative or employé in the department of business in which the controversy has arisen, as also any person who keeps the records of wages earned in those departments.

Any decision made by the board is binding on the parties who joined in the application, for six months, or until either party has given the other notice, in writing, of his intention not to be bound by the same. At the expiration of sixty days therefrom, notice is to be given to the employés by posting notices in the factories, store, mill, or mine in which they are employed.

Parties to the controversy, such as are herein named, may, in writing, submit the matters in dispute to a local board of arbitration and conciliation, which board may be mutually agreed upon, or the employer may designate one, the employés another, and the two so designated may choose the third, who shall be chairman.

Such local board shall, as regards matters submitted to it, exercise the same powers which the State board might have and exercise, and the decision of the local board shall have such binding effect as may be agreed upon by the parties to the controversy.

The decision of such board in any case shall be given within ten days after the closing of the hearing, and shall be filed with the clerk of the county in which the controversy arose, and a copy shall be forwarded to the State board and entered upon its records.

Each member of the State board shall be entitled to five dollars per day as compensation for each day of actual service upon the board, which shall be paid out of the treasury of the State; and each member of the local board shall be entitled to the sum of three dollars for each day of actual service, not exceeding ten days on any one case, to be paid out of the treasury of the county in which the controversy originates.

NEW JERSEY.

By Act approved March 24, 1892, in case of an industrial dispute between employer and employés, the matters in controversy may be submitted to a board of arbitration to be adjudicated and determined. The said board shall consist of five persons.

When the employés concerned in the said dispute, as aforesaid, are members of good standing in any labor organization which is represented by one or more delegates in a central body, the said central body shall designate two of the arbitrators, the employers shall designate two, and the four arbitrators so designated shall designate the fifth, who shall be chairman of the board.

In case said employés are members in good standing of an organization which is not represented in the central body, then the organization of which they are members shall have the power to select and designate two arbitrators upon the said board, and said board shall be organized otherwise as hereinbefore said. In case the employés concerned in any such grievance are not members of such organization, such employés shall designate two arbitrators of said board, and the said board shall otherwise be organized as hereinbefore first said.

A board selected as named may present a petition to the county judge of the county where the controversy or dispute to be arbitrated arises, signed by a majority of the board, setting forth the nature of the grievance or dispute, and praying the order of such judge establishing and approving the said board. Receiving such petition, the judge

shall make an order establishing such board and referring the matters in dispute to it for hearing.

The arbitrators selected to serve upon such board shall sign a contract to act as such, and shall take and subscribe an oath to faithfully and impartially discharge their duties as such arbitrators.

The board may select one of its members to act as secretary, and shall give notice to the parties to the controversy of the time and place of the hearing of the same. The chairman of the board shall have power to administer oaths and issue subpoenas, and the board may make and enforce the rules for its government and for the transaction of the business before it.

Within ten days next subsequent to the date upon which the hearing of any controversy has been had, the board shall render its decision therein, in writing, which decision shall be a settlement of the matters referred to the board, unless an appeal is taken therefrom as hereinafter named. One copy of such decision shall be filed in the office of the clerk of the county where the controversy arises, and another transmitted to the secretary of the State Board of Arbitration, hereinafter mentioned.

When the first board herein named shall have rendered its decision in any case, its power shall cease unless there may be in existence, at the same time, similar differences and disputes between the same classes of persons mentioned in section one, and in such cases said persons may submit their differences to the said board, which shall have the power to determine and adjudicate the same as if the board was originated for the settlement of such other difference or differences.

Within thirty days after the passage of the Act here named, it is made the duty of the Governor to appoint a State Board of Arbitration, to consist of three persons, each to hold office for a term of five years; one to be selected from a bona fide labor organization. In case of vacancy, the Governor in the same manner shall appoint a member for the residue of the term. The board shall appoint a secretary, who may hold office during the pleasure of the board. Members of the said board and the secretary thereof shall take and subscribe the constitutional oath of office. The offices of the board shall be in the State Capitol building of the State.

An appeal may be taken from the decision of any local board of arbitration within ten days after the filing of the same, which appeal shall be heard and determined by the State Board of Arbitration, and the decision of the State board shall be final and conclusive in the premises upon all parties.

Two of the said board shall constitute a quorum for the transaction of business, and may hold meetings at any time or place in the State. Investigations ordered by the said board may be held by and before any one member if so directed, but the decision of any single member shall not be deemed conclusive in any case until approved by the board, or a majority of the board, and each member of the board shall have power to administer oaths.

In case of an industrial controversy, the same may be submitted by the parties concerned directly to the said board, first informing the board of the intention so to do. Receiving such notice, it is the duty of the board to proceed without delay to the locality of the dispute and give hearing to the same. The parties to the dispute shall present their submission of the same to the board in writing, and shall severally agree, in writing, to submit to the decision of the board as to matters so submitted, and shall also promise or agree to continue on in business or at work, without a lockout or strike, until the decision of the said board is rendered; provided, it shall be rendered within ten days after the completion of the investigation.

In any case the board shall render its decision within ten days after the hearing; one copy of such decision shall be filed by the clerk of the board in the clerk's office of the county where the controversy arose, and one copy shall be served on each party to the controversy.

In case a strike or lockout is threatened or is occurring in any part of the State, it shall be the duty of the board to proceed to the locality of the said strike or lockout, communicate with the parties to the controversy, endeavor to effect an amicable settlement of such controversy, inquire into the cause of the controversy, etc.

The board shall report annually to the Legislature such facts and explanations as

will disclose its workings, and such suggestions as to legislation as may seem to it conducive to harmony in relation to disputes between employers and employes.

Each member of the said board and the secretary thereof shall be paid ten dollars, respectively, for each and every day actually employed in the performance of their duties, including such rates of mileage as are now provided by law.

By an Act supplementary to the foregoing and approved March 25, 1895, certain persons, to wit: Samuel S. Sherwood, William M. Doughty, James Markham, Charles A. Houston, and Joseph L. Moore, were appointed to constitute a board of arbitration, each to serve as a member of such board for a term of three years, and each member named to receive an annual salary of twelve hundred dollars in lieu of all fees, per diem, compensation, and mileage.

One of said members shall be chosen by the others as secretary of the board, and he shall receive as additional compensation, two hundred dollars per annum.

And further, that after the expiration of the terms of office of the persons named, the Governor shall appoint, by and with the advice and consent of the Senate, their successors for the length of term and at the salary named in the first section of the herein supplementary act.

OHIO.

By an Act passed March 14, 1893 (page 83, Acts of 1893), it is provided that within thirty days after the passage of the Act, the Governor of the State, with the advice and consent of the Senate, shall appoint two competent persons to serve as a State Board of Arbitration and Conciliation; one to be an employer or selected from some association representing employers of labor, one to be selected from some labor organization and not an employer of labor, and the third to be appointed upon the recommendation of the other two; provided, that the Governor may appoint the third, if, prior to the expiration of thirty days, the said two do not recommend the appointment of the third member.

In making appointments for the first time under this Act, one member shall be appointed for one year, one for two years, and one for three years; and all appointments thereafter shall be for three years, and until the respective successors are appointed.

Vacancies occurring at any time may be filled for the unexpired term by appointment by the Governor. Each member of the board entering upon the duties of office shall be sworn to faithfully discharge the same.

The board shall organize by choosing one of its number as chairman and another as secretary, and shall establish rules of procedure subject to the approval of the Governor.

In case of controversy not involving questions which may be the subject of a suit or action at law between an employer employing not less than twenty-five persons and his or its employes in the same general line of business, the board shall, upon application hereinafter named, visit the locality of the dispute, make careful inquiry into the cause thereof, hear all persons interested who may come or be subpoenaed before the board, and advise the respective parties what, if anything, they ought to do to adjust said dispute. Should such mediation fail to bring about an adjustment of the differences, the board shall render a written decision therein, which decision shall at once be made public, and shall be recorded upon the record books of the board, and a short statement thereof published in the annual report of the board, hereinafter provided for. The board shall also cause a copy of the decision to be filed with the clerk of the city and county where said controversy occurs.

Application to the board as hereinafter named may be made by either or both parties to the controversy, and shall be signed in the respective instances by said employers, or by a majority of the employes in the department of business in which the controversy or difference exists, and the application shall contain a statement of the grievances complained of and a promise to continue on in business or at work, without any strike or lockout, until the decision of the board is rendered; provided, it shall be rendered within ten days of the date of the filing of the application. A joint application from the parties to the dispute may contain a stipulation that a decision of the board under such application shall be binding upon the parties to the extent stipulated, and the

decision of the board in the case shall, to such extent, be made and enforced as a rule of court in the court of common pleas, in the county from which such joint application comes, the same as upon a statutory award.

Upon receipt of an application, the board shall give public notice of the time and place for the hearing thereof, except in case that the joint application, with written request that no public notice be given, such notice shall be withheld.

Should the arbitrator or arbitrators in any application fail to perform his or their promises made in such application, the board shall proceed no further in regard thereto, without the written consent of the adverse party. The board shall have power to summon witnesses, administer oaths, and issue subpoenas.

Parties to any controversy, such as is here contemplated, may submit the same in writing to a local board of arbitration and conciliation, which board may be either mutually agreed upon, or the employer may designate one, the employes another member of such board, and the two to choose the third, who shall be chairman.

A local board so formed shall, in respect to the matters referred to it, exercise all the powers which the State board might have and exercise. Its decisions shall have whatever binding effect may be agreed to by the parties to the controversy by a written submission. Its jurisdiction shall be conclusive in respect to the matters submitted to it, but it may ask for and have, and is entitled to ask for and have, the assistance of the State board. Its decision shall be rendered within ten days after the closing of any hearing held before it, and a copy shall be filed with the clerk of the city and county in which the controversy arose, and a copy of the same shall be forwarded to the State board.

Each member of such local board shall be paid from the treasury of the city and county in which the controversy exists, subject to approval in writing by the city council or administrative board of such city, or board of county commissioners of such county, the sum of three dollars for each day of actual service, not exceeding ten days for any one arbitration.

The mayor or probate judge in any locality in the State shall at once notify the State Board of Arbitration in case a strike or lockout is threatened or is occurring, in his vicinity, and upon receiving such notification, or becoming otherwise aware that such strike or lockout is threatened or is occurring, and that the employer, party to the controversy, employs not less than twenty-five persons in the same general line of business in the State, the said board of arbitration shall communicate at once with such employer and his or its employes and shall endeavor to effect an amicable settlement between them, or therein failing, shall endeavor to persuade them to submit the matters in dispute to a local board of arbitration, or to the State board.

The said board may also, if it deem it advisable so to do, investigate the cause of the controversy and publish a report of its findings in regard thereto and assign the responsibility or blame therefor.

The State board is required to make a yearly report of its work to the Governor and Legislature and to include in such report suggestions as to legislation believed to be conducive to friendly relationships between employers and employes.

Each member of the State board shall receive five dollars a day for each day of actual service, together with traveling expenses.

By Act adopted April 27, 1896, certain amendments to the foregoing Act were enacted, not, however, of such tenor as to change it in material respects.

UTAH.

By an Act approved March 24, 1896, it is provided that the Governor, with the advice and consent of the Senate, shall appoint three persons, not more than two of whom shall belong to the same political party, who shall be styled, collectively, and shall act as a State Board of Labor Conciliation and Arbitration.

One, and only one, of such appointees shall be an employer of labor, and one, and only one, shall be an employe selected from some labor organization, the third to be neither an employer of nor an employe engaged in manual labor, and to be chairman of the board.

As to the first appointments made under the Act, one appointee shall serve for one

year, one for three years, and one for five years, and at the expiration of their respective terms their successors shall be appointed, each for the term of four years.

The members of the board, before entering upon the duties of their office, shall be sworn to faithfully discharge the same. The board shall organize by selecting from its members a secretary, and it shall establish suitable rules of procedure.

In case of an industrial controversy involving questions which may not be the subject of an action at law or bill in equity, between an employer employing not less than ten persons in the State, and his or its employés, the board shall, upon application hereinafter named, visit the locality of the dispute, make careful inquiry into the cause thereof, hear all persons who may come before it, and advise the respective parties what, if anything, they should do or submit to to adjust such dispute, and thereafter shall render a written decision in regard thereto. The decision shall at once be made public and shall be recorded on the proper book of record to be kept by the secretary of said board, and a short statement thereof published in the annual report hereinafter provided for.

An application as hereinafter named is to be signed by the employer, or by a majority of his or its employés in the department of business in which the controversy exists, or it may be signed by both parties, and shall contain a concise statement of the grievances complained of, and a promise to continue on in business or at work, without any lock-out or strike, until a decision of the board shall be rendered; provided, that such decision shall be rendered within three weeks after the filing of the application.

Receiving an application, the board shall cause public notice to be given of the time and place of the hearing in regard thereto; provided, that such public notice shall not be given when both parties join in the application and present therewith a written request that no public notice be given.

The board has power to summon witnesses, and to use the power of the courts of the State to compel obedience to its subpoenas, etc. The board shall make an annual report to the Governor of the State before the first day of March of each year. Decisions of the board shall be binding upon the parties who join in the application, or who have entered their appearances before the board, until either party has given the other notice, in writing, of his, their, or its intention not to be bound by the same for a period of ninety days thereafter.

In case knowledge of a threatened or existing strike or lockout, involving not less than ten employés, shall come to the board, it may, upon its own initiative, mediate and arbitrate in regard to the difficulty, if possible.

Each member of the board shall receive three dollars for each day of service while actually engaged in the hearing of any controversy, and five cents per mile for each mile traveled in going to and returning from the place of such hearing.

INDIANA.

By Act approved March 4, 1897, entitled "An Act providing for the creation of a Labor Commission and defining its duties and powers, and providing for arbitration and investigation of labor troubles," it is provided that there shall be created a commission to be designated the Labor Commission, and charged with duties and invested with powers as hereinafter enumerated. The members of the commission shall be appointed by the Governor, with the advice and consent of the Senate, and their terms of office shall be for two years, and until their successors have been appointed and qualified.

One member shall have been for not less than ten years of his life an employé for wages in some department of industry in which it is usual to employ a number of persons under single direction and control, and shall, at the time of his appointment, be affiliated with the labor interest as distinguished from the capitalist or employing interest, and the other member shall have been for not less than ten years an employer of labor for wages in some department of industry in which it is usual to employ a number of persons under single direction and control, and shall be at the time of his appointment affiliated with the employing interest as distinguished from the labor interest. Neither of such commissioners shall be less than forty years of age, and they shall not be members of the same political party, nor shall they hold any state, county, or city office during the term for which they are appointed. They each shall take and subscribe an

oath; to be indorsed upon their respective commissions, that they will punctually, honestly, and faithfully discharge their duties as commissioners. The commission shall have a seal, and shall be provided with an office at the city of Indianapolis, and may appoint as secretary a skilled stenographer and typewriter, who shall receive a salary of six hundred dollars per annum, and traveling expenses for each day spent by him in discharge of his duties away from Indianapolis.

Receiving information of any strike or industrial controversy in the State affecting the employment of fifty or more persons, it shall be the duty of the commission to go to the place where the controversy exists, put itself into communication with the parties, and offer its services as mediator between them. If it shall not succeed in effecting an amicable settlement to the controversy, it shall endeavor to induce the parties to submit their differences to arbitration, either under the provisions of this Act or otherwise, as they may elect.

For the purpose of arbitration in the Act, the commission and judge of the circuit court of the county in which the business in relation to which the controversy exists shall have been carried on, shall constitute a board of arbitrators, to which shall be added, if the parties so agree, two more members, one to be named by the employer, the other by the employes in the arbitration agreement.

In case the parties to the controversy are a railway company and its employes engaged in the running of trains, any terminal within this State, of the road or of any division thereof, may be treated as the location of the business, within the terms of this section, for the purpose of giving to the judge of the circuit court the jurisdiction to act as member of the board of arbitration.

An agreement to enter into arbitration under this Act shall be in writing, and shall state the issue to be submitted and decided, and shall have the effect of an agreement for the parties to abide by and to perform the award. Such agreement may be signed by the employer as an individual, or by a firm or corporation, as the case may be, and execution of the agreement in the name of the employer or any agent or representative of such employer theretofore in the management of the business or the department of the business in which the controversy shall have arisen, shall bind the employer. On the part of the employes, the agreement may be signed by them, in their own person, not less than two thirds of those concerned in the controversy signing, or it may be signed by a committee by them appointed. Such committee may be created by election at a meeting of the employes concerned in the controversy, at which not less than two thirds of all employes shall be present, which election and the fact of the presence of the required number of employes at the meeting shall be evidenced by the affidavit of the chairman of such meeting attached to the arbitration agreement.

If the employes concerned in the controversy, or any of them, shall be members of any labor union or workman's society, they may be represented in the execution of the said arbitration agreement by officers or committeemen of the union or society designated by it in any manner conformable to its usual methods of transacting business, and others of the employes may be represented by committee as hereinbefore provided.

In case of the absence at the hearing of the controversy of one of the members of the commission, the judge of the circuit court of the county who has jurisdiction of the controversy shall, upon the application of the commissioners present, appoint a member pro tem. in the place of the absent commissioner, who shall exercise, pro tem., all the powers of the commissioner with respect to the particular controversy being heard. Such commissioner pro tem. shall represent and be affiliated with the same interests as is the absent commissioner in whose place he appears.

Before entering upon their duties, the arbitrators shall take an oath to the effect that they will honestly and impartially perform their duties as arbitrators, and a just and fair award render to the best of their ability.

The sittings of the arbitrators shall be in the court-room of the circuit court, or such other place as shall be provided by the county commissioners of the county in which the hearing is had. The circuit judge shall be the presiding member of the board. He shall have power to issue subpoenas, and to administer oaths and affirmations to witnesses, enforce order, and direct and control the examinations. The sittings shall be open and public, or with closed doors, as the board shall direct. If five members are

sitting as such board, three members may make an award; if but three members are sitting, two may make an award. The award shall be made in writing and, with the arbitration agreement, shall be delivered to the clerk of the circuit court of the county in which the hearing is heard, a copy of the same delivered to the employer, and a copy to the signers of the agreement on the part of the employés. Copies of all papers shall be preserved in the office of the commission at Indianapolis. The clerk of the circuit court shall make record of the papers delivered to him in the order book of the circuit court. Any person who was a party to the arbitration proceedings may, by verified petition to the circuit court, or the judge thereof, show that the award rendered in such proceedings has not been complied with, and thereupon the court or judge shall grant a rule against the party or parties charged with such non-compliance, to show cause within five days why said award has not been by them obeyed. Upon the return date of the rule, the judge or court shall hear and determine the questions presented and make such order or orders, directed to the parties before him in person, as shall give just effect to the award.

Disobedience by any party to such proceedings or any order so made shall be deemed a contempt of court, and may be punished accordingly, but such punishment shall not extend to imprisonment except in case of willful and contumacious disobedience.

In all proceedings under this section the award shall be regarded as presumptively binding upon the employer and all employés who were parties to the controversy submitted to arbitration, which presumption shall be overcome by proof of dissent from the submission delivered to the arbitrators, or one of them, in writing, before the commencement of the hearing.

The commission, with the advice and assistance of the Attorney-General of the State, which advice and assistance the Attorney-General is required to give, may formulate rules and regulations respecting proceedings in arbitration under this Act, not inconsistent with the Act or the law, including forms, and cause the same to be printed and furnished to all persons applying therefor, and all arbitration proceedings under this Act shall thereafter conform to such rules and regulations.

In case of an industrial controversy between any employer of not less than twenty-five persons and his or its employés, which controversy has not resulted in an open strike or lockout, the parties thereto may of their own motion apply to the commission for arbitration of the controversy, and upon the execution of the arbitration agreement, as hereinafter named, a board of arbitrators shall be organized in the manner hereinbefore provided. The arbitration shall take place and the award be rendered, recorded, and enforced in the same manner as in arbitrations under the provisions found in the preceding sections of this Act.

In all cases under this Act requiring the attendance of a judge of the circuit court as a member of an arbitration board, such judge shall give his duty as such member precedence over any other business pending in his court, and if necessary for the prompt transaction of such other business, it shall be his duty to appoint some other circuit judge, or judge of some other superior or appellate, or supreme court to sit in the circuit court in his place during the pendency of such arbitration, and such appointee shall receive the same compensation for his services as is now allowed by law in the case of change in judge in civil actions.

In case of an industrial controversy affecting the labor or employment of fifty or more persons, as hereinbefore named, if the parties thereto shall, at the end of five days after the first communication from the hereinsaid labor commission, have failed with the said commission to adjust amicably their difference, or to agree to submit the same to arbitration, it shall be the duty of the labor commission to proceed at once and to investigate the facts attending the controversy.

In such investigation, the commission shall, upon request of the same, be entitled to the presence and assistance of the Attorney-General of the State, in person or by deputy, and it is made his duty to attend without delay, upon written request or telegram from the commission. For the purpose of such investigation, the commission shall have power to issue subpoenas and administer oaths and affirmations. In case of disobedience to any subpoena or the refusal of any witness to testify, the circuit court of the county within which the subpoena was issued, or the judge thereof, shall, upon an application of the labor commission, grant a rule against the disobeying person or persons, request-

ing the person or persons to show cause why he or they should not obey such subpoena or testify as required by the commission, or be adjudged guilty of contempt; and in such proceedings such court, or the judge thereof, shall be empowered to compel obedience to such subpoena, issued under the order and by authority of the court, or to compel a witness to testify as witnesses in court are compelled to testify. No person shall be required to attend as witness at any place outside the county of his residence. Witnesses called by the labor commission under this section, shall be paid one dollar per diem out of the expense fund provided by this Act, if such payment is claimed at the time of the examination.

Upon the completion of the investigation, authorized as herein next before named, the commission shall forthwith report the facts thereby disclosed affecting the merits of the controversy to the Governor, who, unless he shall receive good reason to the contrary, shall at once authorize such report to be published, and as soon thereafter as practicable such report shall be printed, and a copy of the report shall be supplied to any one requesting the same.

Any employer shall be entitled in his response to a request made of him by the commission in the investigation provided for as herein next before named, to submit in writing, to the commission, a statement of any facts material to the inquiry, publication of which would be likely to be injurious to his business, and the facts so stated shall be taken and held as confidential, and shall not be disclosed in the report or otherwise.

Members of the commission shall receive ten dollars each per diem for the time actually expended, together with actual and necessary traveling expenses. While absent from home in the performance of duty, each of the members of the board of arbitration chosen by the parties under the provisions of this Act shall receive the same compensation for the days occupied in service upon the board. The Attorney-General, or his deputy, shall receive necessary and actual traveling expenses while absent from home in the service of the commission.

It is declared to be the policy of this Act that the arbitrations and investigations provided for shall be conducted with all reasonable promptness, and no member of any board of arbitration shall be allowed payment for more than fifteen days' service in any one arbitration, and no commission shall be allowed payment for more than ten days' service in making investigation provided for in section fourteen, *et sequentes*, of the Act.

IDAHO.

By an Act which became a law the 20th day of March, 1897, the Governor of the State, by and with the advice and consent of the Senate, is required, on or before the 4th day of March, 1897, to appoint three competent persons to serve as a State Board of Arbitration and Conciliation, as in the Act provided. One of such persons shall be an employer of labor or selected from some association representing employers of labor, one shall be selected from some labor organization and not an employer of labor, the third shall be appointed on the recommendation of the two; provided, the two appointed do not agree on the third member at the expiration of thirty days, he shall then be appointed by the Governor.

Of the three appointees herein named, one shall be appointed to serve for six years, one for three years, and one for two years, or until their successors are appointed; and on or before the 4th day of March of each succeeding year during which the Legislature of the State is in its regular biennial session, the Governor shall appoint one member of such board to succeed the member whose term then expires.

The terms of all appointees, subsequent to the first herein named, to be for six years, or until their respective successors are appointed.

Members of the board shall, before entering upon the duties of their office, be sworn to faithfully discharge the same. They shall organize and choose one of their number as chairman, and also one of their number as secretary, and may appoint and remove a clerk of the board, and he shall receive pay for the time only during which his services are actually required, and that at the rate of four dollars per day during the time he may be employed. The board shall establish such rules of procedure as may be approved by the Governor and Senate.

In case of any controversy or difference, not involving questions which may be made the subject of a suit at law, or bill in equity, between an employer who employs not less than twenty-five persons in the same general line of business, and his or its employés, the board shall, upon application as hereinafter named, and as soon thereafter as practicable, visit the locality of the controversy, make careful inquiry as to the cause thereof, hear all persons who may come before it, and advise the respective parties what, if anything, they ought to do or submit to to adjust said dispute, and make a written decision thereon. This decision shall at once be made public, shall be recorded on the proper books of record to be kept by the board, and a short statement thereof shall be published in the annual report and a copy be filed with county recorder of such county where the business is carried on. The application to the board shall be signed by the employer, or by a majority of his employés in the department of business in which the controversy exists, or by both parties, and shall contain a statement of the grievances complained of, and a promise to continue on in business, or at work, without lockout or strike, until the decision of the board shall be rendered, and the same shall be made three weeks from the date of the filing of such application.

As soon as possible after the receipt of the application, the board shall cause public notice to be given of the time and place of the hearing thereof; provided, that when both parties join in the application and present therewith a written request that no public notice be given, such notice need not be given.

Should the petitioner or petitioners fail to perform the promise made in the application, the board shall proceed no further thereupon, without the written consent of the adverse party. The board shall have the power to summon witnesses, and to require the production of books containing the records of wages paid. Summons may be signed and oaths administered by any member of the board. Upon the receipt of an application, and after notice, as hereinbefore named, the board shall proceed as before provided, and render a written decision, which shall be open to public inspection, shall be recorded upon the books of the board, and published, at the discretion of the same, in the annual report to be made to the Governor of the State on or before the first day of February of each year.

The decision herein named shall be binding on the parties for six months, or until either party gives the other notice in writing of his intention not to be bound by the same at the expiration of sixty days therefrom. Said notice may be given to said employés by posting the same in a conspicuous place in the establishment or factory where they are working or are employed.

The parties to a controversy, as herein described, may submit the matters in dispute, in writing, to a local board of arbitration and conciliation. Such board may each mutually agree upon or the employer may designate one of the arbitrators, the employés another, and the two so designated may choose the third, who shall be chairman of the board. Such board shall, in respect to the matters referred to it, have and exercise all the powers which the State board might have and exercise, and its decision shall have whatever binding effect may be agreed upon by the parties to the controversy in the written submission. The jurisdiction of the local board shall be conclusive in regard to the matter submitted to it, but it may ask and receive the advice of the State board.

The decision of the local board shall be rendered within ten days after the closing of any hearing held before it, and such decision shall at once be filed with the recorder of the county in which the controversy arose, and a copy thereof shall be forwarded to the State board.

Each member of a local board, as herein said, shall receive from the treasury of the county in which the controversy that is the subject of arbitration exists, and subject to approval by the board of commissioners of such county, the sum of three dollars for each day of actual service, not exceeding ten days for any one arbitration.

The members of the State board shall be paid six dollars per day for each day that they are actually engaged in the performance of their duties, and they shall be allowed other necessary and traveling expenses, all to be paid out of the treasury of the State.

MICHIGAN.

By Act approved July 3, 1889, it is provided that in case of controversy between employer and his or its employés, it shall be lawful to submit the same, in writing, to a court of arbitration for hearing and settlement in the manner hereinafter named.

The Governor of the State, after the passage of the Act, may, whenever he shall deem it necessary, with the advice and consent of the Senate, appoint a State Court of Mediation and Arbitration, to consist of three competent persons, who shall hold their term of office, respectively, one, two, and three years, and upon the expiration of their respective terms, the uniform term of office shall be for three years. If any vacancy happens, by resignation or otherwise, the Governor shall appoint some person for the residue of the term.

The court of arbitration shall have a clerk, who shall be appointed by the court to serve three years, and it shall be his duty to keep a full record of the proceedings of the court, and to preserve all documents and to perform such other duties as the court may prescribe. Under the direction of the court he shall have power to issue subpoenas, administer oaths, and call for and examine all books, papers, and documents of any parties to the controversy, with the same authority to enforce their production as is possessed by the courts of record, or the judges thereof in this State.

Members of the said court and the clerks thereof shall take and subscribe the constitutional oath of office, and be sworn to the due and faithful performance of the duties of their office, before entering upon the discharge of the same. The office shall be located in the State Capitol of the State by the persons having charge thereof, for the proper and convenient transaction of the business of the court.

Two arbitrators shall constitute a quorum for the transaction of business, and hold a meeting at any time or place within the State. Investigation and examinations ordered by the court may be held or taken by or before any one of their number, if so directed, but the proceedings and decisions of any single arbitrator shall not be deemed conclusive until approved by the court or a majority thereof. Each member of the court shall have power to administer oaths.

In case of a controversy of any nature between an employer and his employés, it shall be lawful for the parties to submit the same directly to the State court, and they shall jointly notify the court or the clerk thereof, in writing, of the controversy. Receiving such notification, it shall be the duty of the court to proceed forthwith to the locality of the controversy and inquire into the cause thereof. The parties thereto shall thereupon submit to the court, in writing, their grievances and complaints, and the cause or causes thereof, and severally agree in writing to submit to the decision of such court as to the matters so submitted, with a promise or agreement to continue on in business or at work, without a lockout or strike, until the decision of the court is rendered; provided, it shall be rendered within ten days after the completion of the investigation. The court shall thereupon proceed to fully investigate the matters in controversy, and to take testimony under oath in relation thereto, and it shall have the power to issue subpoenas, compel the production of books, papers, etc., to the same extent as the same power is possessed by courts of record, or the judges thereof, in the State.

After the matter has been fully heard, the said board, or a majority of its members, shall, within ten days, render its decision thereon in writing, stating such details as will clearly show the nature of the decision and the points disposed of. The decision shall be in triplicate, one copy of which shall be filed by the clerk of the court in the clerk's office of the county where the controversy arose, and one copy shall be served on each party to the controversy.

Fees of witnesses shall be one dollar for each day's attendance and seven cents per mile traveled by the nearest routes in getting to and returning from the place where the attendance is required by the court.

The court shall make a yearly report to the Legislature of such facts and explanations as will disclose its actual workings, and shall include such suggestions as to legislation as may seem to it conducive to harmony between employers and employés.

Each member of the court shall be entitled to five dollars for each day of actual service performed. The clerk of the court shall be appointed from among the members of

the court, and shall receive an annual salary not to exceed twelve hundred dollars, without per diem.

COLORADO.

By an Act adopted in 1897, it is provided that there shall be established a State Board of Arbitration to consist of three members, which shall be charged with the consideration and settlement, by means of arbitration and conciliation, and the adjustment, where possible, of strikes, lockouts, or wage controversies, arising between employers and employes.

Immediately after the passage of this Act, the Governor shall appoint a State Board of Arbitration, consisting of three qualified resident citizens of the State of Colorado, who shall be each more than thirty years of age. One member of said board shall be selected from the ranks of active members of a bona fide labor organization of the State of Colorado, and one shall be selected from active employers of labor or from organizations representing employers of labor; the third member shall be appointed by the Governor from a list which shall not consist of more than six names, selected from entirely disinterested ranks, submitted by the two members of the board above designated. If any vacancy should occur in the board, the Governor shall in the same manner appoint an eligible citizen for the remainder of the term. The herein said third member of the board shall be secretary thereof, whose duty it shall be, in addition to his duties as a member of the board, to keep a full record of the proceedings of the board, and perform such clerical work as may be necessary. In connection with the official business of the board, he shall be custodian of all documents relating to the business of the board; and shall also have, under the direction of a majority of the board, power to issue subpoenas, administer oaths, call for and examine books, papers, documents, with the same authority to enforce their production as is possessed by courts of record, or the judges thereof, in the State.

Each member of the board of arbitration shall take a constitutional oath of office, and be sworn to faithfully perform his duties as such member of the board before entering upon the discharge of the same. The Secretary of State shall set aside an office in the State Capitol for the proper and convenient transaction of the business of the board.

In case of a controversy or dispute of any nature between an employer and employes, it shall be lawful for the parties thereto to submit the same directly to the State board, in case such party would like to do so, and shall inform such board or its clerk of such desire.

Receiving such notice, it shall be the duty of the board to proceed forthwith to the locality of the controversy, and inquire into the cause of the same. The parties shall thereupon submit to said board, in writing, a statement of their grievances and the cause or causes thereof, and severally agree also, in writing, to submit to the decision of such board as to the matters so submitted, promising to continue on in business or at work until the decision of the board is rendered; provided, that such decision is rendered within ten days after the completion of the investigation. The board shall thereupon proceed to investigate and inquire into the matters in controversy, and to take testimony, under oath, in relation thereto, and shall have power by its chairman or clerk to administer oaths, issue subpoenas for the attendance of witnesses, and compel the production of books and papers, in the same manner as the courts of record, or the judges thereof, in the State.

Having fully heard the matter, the State board, or a majority of its members, shall, within ten days, render its decision thereon, in writing, stating such details as will clearly show the nature of the decision and the points disposed of. The clerk of the board shall file four copies of the decision, one with the Secretary of State, one in the records of the board, and one with each respective party to the controversy.

Witnesses before the board shall be paid two dollars for each day's attendance, together with five cents per mile over the nearest routes traveled in going to and returning from the place where the attendance is required by the board.

The parties to any controversy, such as herein described, may submit the same in writing to a local board of arbitration and conciliation. The said board may either be mutually agreed upon, or the employer may designate one of such arbitrators, the

employés another, and the two arbitrators so designated may choose the third, who shall be chairman of the board.

The board shall, in respect to the matters referred to it, have all the powers which the State board might have and exercise, and its decision shall have such binding effect as may be agreed upon by the parties to the controversy in the written submission. The jurisdiction of the local board shall be conclusive, but it shall ask and receive the advice of the State board. The decision of the said local board shall be rendered within ten days after the closing of any hearing held by it, and the board shall file a copy of the said decision with the secretary of the said State board.

Each member of the said local board shall receive from the treasury of the city, village, or town in which the controversy arose, subject to the approval of the mayor of such city, board of trustees of such village, or town board of such town, the sum of three dollars for each day of actual service, not exceeding ten days for any one arbitration; provided, that when such hearing is held at some point having no organized town or city government, in such case the cost of such hearing shall be paid jointly by the parties to the controversy; provided further, that in the event of any local board of arbitration or a majority thereof failing to agree within ten days after any case has been placed in its hands, the State board shall be called upon to take such case as provided by this Act.

The State board shall report to the Governor annually in regard to its work, and shall include a concise statement of all cases coming before it for adjustment. The secretary of the State board shall have printed, for circulation, one thousand copies of the report of the secretary of the board; provided, that the volume shall not exceed four hundred pages.

Two members of the board of arbitration shall receive each the sum of five hundred dollars annually, and shall be allowed all necessary traveling and other expenses, while in the performance of the duties of their office.

The member herein designated to be the secretary of the board shall receive a salary of twelve hundred dollars, and the salaries of the members shall be paid in monthly installments by the State treasurer upon warrants issued by and for the State.

Terms of office of the members of the board shall be as follows: That of the members who are selected from the ranks of labor organizations and from active employers of labor shall be for two years, and thereafter every two years the Governor shall appoint one from each class for a period of two years. The third member of the board shall be appointed as herein provided every two years. The Governor shall have power to remove any member for cause and fill any vacancy occasioned thereby.

WISCONSIN.

By Act approved April 19, 1895, it is provided that the Governor of the State shall appoint three competent persons to serve as a State Board of Arbitration and Conciliation. One of such persons shall be an employer of labor selected from some association representing employers of labor, one shall be selected from some labor organization and not an employer of labor, the third shall be appointed on the recommendation of the other two; provided, the two appointed by the Governor do not agree upon the third member at the expiration of thirty days, he shall be appointed by the Governor.

The members of the board shall hold office for the term of two years and until their successors are appointed. Each member of the board before entering upon the duties of his office shall be sworn to support the constitution of the United States, the constitution of the State of Wisconsin, and to faithfully discharge the duties of his office.

The board shall choose one of its number as chairman, another as secretary, and shall establish rules of procedure, subject to the approval of the Governor and the Attorney-General. In the case of controversy, not the subject of litigation in the courts of this State, existing between an employer employing not less than twenty-five persons in the same general line of business, and his or its employés, the board shall, upon application as hereinafter provided, visit the locality of the dispute, inquire into the cause thereof, hear all persons interested who may come before it in regard thereto, and advise the respective parties what they should do or submit to in order to adjust said dispute, and make written decision thereof. The decision shall forthwith be made pub-

lic, shall be published in two or more newspapers published in the locality of the dispute, shall be recorded on the proper books of record kept by the secretary of the board, and a succinct statement thereof published in the annual report of the board hereinafter provided for. The board shall cause a copy of such decision to be filed with the clerk of the city, village, or town where such business is carried on.

The application herein named shall be signed by the employer or by a majority of his employés in the department of business in which the controversy or difference exists, or by both parties, and shall contain a statement of the grievances complained of and an agreement to continue on in business or at work, without strike or lockout, until the decision of the board is rendered; provided, that the said decision shall be rendered within thirty days after the filing of the application.

Upon receipt of an application as here stated, the board shall cause public notice to be given of the time and place of the hearing thereof; provided, that such notice need not be given when both parties to the controversy join in the application, and in writing, request that such notice be not given. After notice given, as herein said, the board may, in its discretion, appoint two expert assistants to the board, one to be nominated by each of the parties to the controversy; provided, that the board may also appoint such additional expert assistants as it may deem necessary. The assistants here named shall be sworn to faithfully discharge their duties.

Should the petitioner, or petitioners, fail to perform the promise made in the application, the board shall proceed no further thereupon, without the consent of the adverse party. The board shall have power to subpoena as witnesses, operatives in the department of business affected by the controversy, and to examine them under oath, and to require the production of books containing the record of wages paid.

The decisions of the board shall be open to public inspection, and shall be published in a biennial report to the Governor of the State, which shall include such recommendations as the board may deem proper, and shall be printed and distributed according to the provisions governing the printing and distribution of the reports of other State officers.

The decisions of the board shall be binding upon the parties who join in the application for six months, or until either party has given the other notice in writing of his or their intention not to be bound by such decision from and after the expiration of sixty days from the date of said notice.

Parties to any controversy such as here described may submit the matters in dispute, in writing, to a local board of arbitration and conciliation, and such board may either be mutually agreed upon, or the employer may designate one member thereof, the employés another, and the two so designated may choose the third, who shall be chairman of the board.

Such local board shall, in respect to the matters submitted to it, have and exercise all the powers which the State board might have and exercise, and its decisions shall have whatever binding effect may be agreed upon by the parties to the controversy, in the written submission. The jurisdiction of the local board shall be exclusive in regard to the matters submitted to it, but it may ask and receive the advice of the State board.

The local board shall render its decision in writing within ten days after the close of any hearing held by it and shall file a copy thereof with the secretary of the State board. Each member of such local board shall receive from the treasury of the city, village, or town in which the controversy exists, subject to approval, in writing, by the mayor of such city, board of trustees of such village, or town board of such town, the sum of three dollars for each day of actual service, not exceeding ten days for any one arbitration.

In case a strike or lockout, such as here described, is seriously threatened or exists in any case, and threatens, or does involve the business interests of any city, village, or town in the State, it shall be the duty of the State board to investigate the same forthwith, and to endeavor, by mediation, to effect an amicable settlement between the parties thereto, or to endeavor to persuade them (provided, a strike or lockout has not actually occurred) to submit the matter to a local board of arbitration and conciliation, such as herein named, or to the State board.

The said State board may in such case, if it deems it advisable so to do, investigate

the cause or causes of the controversy, ascertain which party thereto is mainly responsible for the existence or continuance of the same, and make and publish a report finding such cause and assigning such responsibility.

Witnesses subpoenaed by the State board shall be allowed for their attendance and travel the same fees as are allowed in the circuit courts of the State.

The members of the State board shall receive actual and necessary expenses incurred by them in the performance of their duties, under this Act, and the further sum of five dollars each, per day, for the number of days actually and necessarily spent by them, the same to be paid out of the State treasury.

MISSOURI.

By Act approved April 11, 1889, it is provided that upon receiving reliable information that a dispute exists between employers and employés which may result in a strike or lockout, the Commissioner of Labor Statistics and Inspection shall forthwith visit the locality of the dispute and endeavor to mediate between the parties thereto, if, in his discretion, it is necessary to do so. If such mediation can not be effected, the commissioner may, in his discretion, cause a formation of a board of arbitration, to be composed of two employers and two employés engaged in an occupation similar to the one in which the dispute exists, but who are not parties to the dispute, and the Commissioner of Labor Statistics and Inspection shall be president of the board.

Such board shall have power to summon and examine witnesses, and hear the matter in dispute, and three days after the investigation is ended, render a decision thereof, which shall be published, a copy of which shall be furnished each party to the dispute, and shall be final unless objection is made by either party within five days thereafter; provided, that the only effect of the investigation herein provided shall be to give the facts leading to such dispute to the public through an unbiased channel.

In no case shall a board of arbitration be formed, in case of such dispute, after work has been discontinued, either by action of the employer or the employés; provided, that should a strike or lockout have occurred in such case before the Commissioner of Labor Statistics could be notified, he may order the formation of a board of arbitration upon resumption of work.

The board shall appoint a clerk, who shall receive three dollars per day for his services, to be paid upon approval by the Commissioner of Labor Statistics, out of the fund appropriated for the expenses of the Bureau of Labor Statistics.

NEBRASKA.

By Act approved March 31, 1887, it is made the duty of the Commissioner of the Bureau of Labor and Industrial Statistics to collect and publish statistics in relation to causes of strikes and lockouts as well as kindred subjects and matters pertaining to the welfare of industrial interests and classes.

NORTH DAKOTA.

By Act adopted in 1890, in case any difference arises between a corporation or person employing twenty-five or more employés, and which threatens to result in a strike or lockout, it shall be the duty of the Commissioner of Agriculture and Labor, when requested so to do by fifteen or more employés, or by the employer, to visit the place of the controversy and diligently seek to mediate between the parties thereto.

IOWA.

By Act approved March, 1886, the district court of each county, or in vacation the judge thereof, has power to, and upon the presentation of the petition or agreement, as hereinafter named, it becomes the duty of said court or judge to issue a license or authority for the establishment, within each county of the State, of a tribunal for the voluntary arbitration and settlement of disputes between employers and employés in the manufacturing, mechanical, or mining industries.

The petition named shall be signed by at least twenty persons employed as workmen, and by four or more separate firms, individuals, or corporations within the county, or by at least four employers, each of whom shall employ at least five workmen, or by a representative of a firm, corporation, or individual employing not less than twenty workmen in their trade or industry; provided, that when the petition is presented, the judge may, upon motion, require testimony to be given as to the representative character of the petitioners, and if it is made to appear that such petitioners do not represent the will of a majority, or at least one half, of each party to the dispute, the license for the establishment of such tribunal of arbitration may be denied, or the judge may make such order in the premises as to him may seem fair to both sides.

If the petition hereinsaid shall be in proper form, the judge shall forthwith cause to be issued a license in form as hereinafter described, authorizing the existence of a tribunal for the voluntary arbitration and settlement of disputes as named, and fixing the place of the first meeting thereof.

The tribunal thus authorized shall continue in existence for one year from the date of its creation, and may assume jurisdiction of any dispute between employers and workmen, in any manufacturing, mechanical, or mining industry, who shall have petitioned for the tribunal, or who may submit their disputes in writing to such tribunal for decision. Disputes occurring in one county may be referred to a tribunal already existing in an adjoining county.

The place of umpire in any such tribunals, and vacancies occurring in such places, shall only be filled by the mutual choice of the whole representation of employers and employes representing the tribunal. The umpire shall be called upon to act after disagreement is manifested in the tribunal by failure to agree after three meetings held and full discussion had.

The award of the umpire shall be final and conclusive upon such matters as are submitted to him in writing and signed by the whole of the members of the tribunal or by parties submitting the same.

The tribunal shall consist of not less than two employers and two workmen, or their respective representatives. The exact number which shall in each case constitute the tribunal shall be inserted in the petition or agreement, and they shall be named in the license issued.

The tribunal when convened shall be organized by the selection of one of its members as chairman and one as secretary, who shall be chosen by a majority of the members. The members of the tribunal shall receive no compensation, but the expenses of the tribunal, other than fuel, light, and the use of the room and furniture, may be paid for by a voluntary subscription, which the tribunal is authorized to receive and expend for such purposes.

The sessions of the tribunal may be held at the county seat of the county where the petition for the same is presented, and a room for the use of the same may be provided by the county board of supervisors.

When no umpire is acting, the chairman shall have power to administer oaths to all witnesses who may be produced, and a majority of such tribunal may provide for the examination and investigation of books, documents, and accounts pertaining to the matters in hearing before it and belonging to either party to the dispute; provided, that the tribunal may unanimously direct that, instead of producing books, documents, and accounts, an accountant may be agreed upon by the entire tribunal and may be appointed to examine such books, papers, and documents as may be presented to him, and such accountant may be sworn to well and truly examine the same and to report the results of such examination to the tribunal. Before such examination, the information desired by the tribunal shall be plainly stated in writing to the said accountant, which statement shall be signed by members of the tribunal, or a majority of each class thereof.

Attorneys-at-law and agents of either party to the dispute shall not be permitted to appear or take part in any proceedings of the tribunal or before the umpire.

When an umpire is acting he should preside and should have all the powers of the chairman of the tribunal, and his determination upon all classes of evidence or other questions in conducting the inquiries there pending shall be final.

Committees of the tribunal, consisting of an equal number of each class, may be con-

stituted to examine into any question in dispute between employers and workmen, which may be referred to such committee by such tribunal, and such committee may hear and settle the same finally when it can be done by unanimous vote; otherwise the same shall be reported to the full tribunal and be there heard as if the question had not been referred.

The said tribunal in connection with the umpire shall have power to make and enforce rules for its government when in session and to fix its sessions and adjournments; provided, that such rules shall not conflict with this statute nor with the laws of Iowa.

Before the umpire shall proceed to act in any case, the questions in dispute shall be plainly defined in writing, and signed by the members of the tribunal, or a majority thereof, of each class, or by the parties submitting the same. Such writing shall contain a submission of the decision thereof to the umpire and shall provide that his decision thereon, after hearing, shall be final.

The umpire shall be sworn to impartially decide all questions submitted to him during his term of office. The submission and his award may be made in the form hereinafter given, and the award must be made within ten days after the question in dispute is submitted to him. The award shall be made to the tribunal, and if for a specific sum of money, may be made a matter of record by filing a copy thereof in the district court of the county in which the tribunal is in session. When so entered of record it shall be final and conclusive, and the proper court may, on motion of any one interested, enter judgment thereon, and when the award is for a specific sum of money, may issue final and other process to enforce the same.

Thereafter follow forms of petitions to be used in asking, under this Act, that voluntary tribunals of arbitration be established, or for license to be issued, on such petition, for the submission of the cause of the controversy to an umpire.

KANSAS.

The arbitration law of Kansas provides for an arbitration tribunal, umpire, etc., in substantially the same way as does the law of Iowa.

MARYLAND.

By Act approved April 11, 1880, it is provided that whenever any controversy shall arise between a corporation incorporated in this State, in which the State may be interested, as a stockholder or creditor, and any person in the employment of such corporation, which, in the opinion of the Board of Public Works, shall tend to impair the usefulness or prosperity of such corporation, such Board of Public Works shall have power to demand and receive a statement of the grounds of said controversy from the parties to the same, and if, in its judgment, there shall be occasion so to do, it shall have the right to propose to the parties, or to any of them, that the same be settled by arbitration. If the parties to the controversy agree and consent to said arbitration, it shall be the duty of the board to provide in due form for the submission of the controversy to such arbitration, and in such manner that the same shall be thereby finally settled and determined. But if the parties refuse to submit to such arbitration, it shall be the duty of the Board of Public Works to examine into and ascertain the cause of the controversy and report the same to the next General Assembly.

All disputes between corporations and their employés, and all disputes between employers and employés in any trade or manufacture, may be settled and adjusted in the manner heretofore mentioned. When such disputes arise as aforesaid, either party may demand and have an arbitration or reference thereof in the manner following, to wit:

When the parties agree, either orally before the court, or in writing, to abide, as regards the dispute, to the determination of any judge or justice of the peace, it shall be lawful for such judge or justice to finally determine, in a summary manner, the matter in dispute. If such parties shall not come before or agree to abide by the determination of such judge or justice, but shall agree to submit their dispute to

arbitrators appointed under the provisions of this article, it shall be then lawful for any judge or justice, and such judge or justice is hereby required, upon complaint made before them, and proof that such agreement for arbitration has been entered into, to appoint arbitrators to settle the matter in dispute, and said judge or justice shall then and there propose no less than two nor more than four persons, one half of whom shall be employers and the other half employés, acceptable to the parties to the dispute, respectively, who, together with such judge or justice, shall have power finally to hear and determine such dispute.

In all other cases, if the parties mutually agree that the matter in dispute shall be arbitrated and determined in a mode different from the one here described, such agreement shall be valid, and the award and determination thereon by either mode of arbitration shall be final and conclusive between the parties.

Every determination of dispute by any judge or justice shall be given as a judgment of the court over which said judge or justice presides; the said judge or justice shall award execution thereon as upon verdict, confession, or nonsuit; and every award made by arbitrators appointed by any judge or justice under the provisions of this article, shall be returned by said arbitrators to the judge or justice by whom they were appointed, and said judge or justice shall enter the same as an amicable action between the parties to the same in the court presided over by the judge or justice, with the same effect as if said action had been regularly commenced in said court by due process of law, and it shall thereupon become a judgment of said court, and execution thereon shall be awarded as upon verdict, confession, or nonsuit, and in all proceedings under this article, whether before a judge or justice of the peace or before arbitrators, costs shall be taxed as they are now allowed by law in similar proceedings, and the same shall be paid equally by the parties to the dispute. Such award shall remain four days in court during its sitting, after the return thereof, before any judgment shall be entered thereon; and if it shall appear to the court within that time that the same is obtained by fraud or malpractice in or by surprise, imposition, or deception of the arbitrators, or without due notice to the parties or their attorneys, the court may set aside such award and refuse to give judgment thereon.

WYOMING.

The constitution of Wyoming contains the following:

The Legislature shall establish courts of arbitration, whose duty it shall be to hear and determine all differences and controversies between organizations or associations of laborers and their employers, which shall be submitted to them in such manner as the Legislature may provide.

Appeals from the decisions of compulsory boards of arbitration shall be allowed to the supreme court of the State, and the manner of taking such appeals shall be prescribed by law.

PENNSYLVANIA.

By Act approved the 18th day of May, A. D. 1893, it is provided that in case of controversy between employers and employés in the mining, manufacturing, or transportation industries of the State, it shall be lawful for either party, or for both parties jointly, to apply to the court of common pleas, to appoint and constitute a board of arbitration to consider and settle such controversy, the details of which controversy must be fully set forth in such application.

The application must be in writing and signed and acknowledged before a proper officer by the representatives of the persons employed as workmen, or by the representatives of the employer, or by the representatives of both, if the application is made jointly.

Applicants must be citizens of the United States, and the application must be filed with the record of all proceedings had in consequence thereof, among the records of said court. Upon application duly presented thereto, it shall be lawful for the said court, if in its judgment the application set forth is of sufficient importance to warrant the intervention of a board of arbitrators, to grant a rule on each of the parties to the alleged controversy, where the application is made jointly, to select three citizens of

the county, of good character and familiar with all matters in dispute, to serve as members of the said board of arbitration, which shall consist of nine members, all citizens of the commonwealth. As soon as the said members are appointed by the respective parties to the issue, the court shall proceed at once to fill the board by the selection of three persons from the citizens of the county of well-known character, and not directly connected with the interests of either party to the dispute, one of whom shall be designated by the judge as chairman of the board of arbitration.

Where but one party makes application for the appointment of such board, the court shall give notice to both parties in interest, require them each to appoint three persons as members of said board within ten days thereafter, and in case either party refuses or neglects to make such appointment, the court shall thereupon fill the board by the selection of six persons who, taken with the three persons named by the other party in the controversy, shall constitute said board of arbitration. The court shall name one of the members of the board as secretary, who shall also have a vote and the same powers as any other member, and shall also designate the time and place of the meeting of the board, and shall place before it copies of all papers and minutes of proceedings in the case or cases submitted.

When the board has been formed, as herein provided, and each member has been sworn, and the papers have been submitted to it, it shall first carefully consider the records before it, and then determine the rules to govern its proceedings. It shall sit with closed doors until its organization is consummated, after which its proceedings shall be public. The president of the board shall have full authority to preserve order at the sessions, and may summon or appoint officers to assist, and in all ballotings he shall have a vote. With the concurrence of two members of the board, he shall have power to send for persons, books, papers, and he shall have power to enforce their presence and require them to testify before the board in any matter, and for any willful failure to appear and testify before said board, when requested by the board, the person or persons so offending shall be guilty of a misdemeanor, and upon conviction thereof shall be sentenced to pay a fine not to exceed five hundred dollars, or to imprisonment not exceeding thirty days, or both fine and imprisonment, at the discretion of the court.

As soon as the board is organized, the parties to the controversy, with their attorneys and counsel, if they so desire, may appear before it and open their case. In all cases the applicants shall stand as plaintiff; but when the application is jointly made, the employes shall stand as plaintiff. Each party in turn shall be allowed a full and impartial hearing, and may examine experts and present models, drawings, statements, and any proper matter bearing on the case, all of which shall be carefully considered by the board in rendering its decision. The decision of the board shall be final and conclusive in all matters brought before it for adjustment, and it may adjourn from the place designated by the court for holding its sessions, to the place or places where the dispute arises, and hold sessions and personally examine the workings and matters in dispute.

Each member of the board shall receive four dollars per diem for services on the same and ten cents per mile, both ways, in going to and returning from the place of meeting, by the nearest route of travel. Witnesses shall be allowed from the treasury of the county in which the controversy exists the same fees as are allowed by law for similar service.

A majority of the members of the board shall voice its decision in any case, and such decision, together with all the papers and minutes of the proceedings, shall be returned to and filed in the court aforesaid for safe keeping.

TEXAS.

By an Act adopted in 1895, the State of Texas provides for local boards of arbitration. The law follows quite closely the arbitration law of Pennsylvania; it, however, contains no provision for its actual enforcement.

Be it noted that as to the foregoing arbitration laws of the several States, and for the sake of brevity, the literal text has not been followed;

care, however, has been exercised to bring out in full the substance of the said several laws.

There next here follows the arbitration law of the State of California, verbatim:

CALIFORNIA.

An Act to Provide for a State Board of Arbitration for the Settlement of Differences Between Employers and Employes, to Define the Duties of Said Board, and to Appropriate the Sum of Twenty-five Hundred Dollars Therefor.

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. On or before the first day of May of each year the Governor of the State shall appoint three competent persons to serve as a State Board of Arbitration and Conciliation. One shall represent the employers of labor, one shall represent labor employes, and the third man shall represent neither, and shall be chairman of the board. They shall hold office for one year and until their successors are appointed and qualified. If a vacancy occurs, as soon as possible thereafter the Governor shall appoint some one to serve the unexpired term; provided, however, that when the parties to any controversy or difference, as provided in section two of this Act, do not desire to submit their controversy to the State board, they may by agreement each choose one person, and the two shall choose a third, who shall be chairman and umpire, and the three shall constitute a board of arbitration and conciliation for the special controversy submitted to it, and shall for that purpose have the same powers as the State board. The members of said board or boards, before entering upon the duties of their office, shall be sworn to faithfully discharge the duties thereof. They shall adopt such rules of procedure as they may deem best to carry out the provisions of this Act.

SEC. 2. Whenever any controversy or difference exists between an employer, whether an individual, co-partnership, or corporation, and his employes, which, if not arbitrated, would involve a strike or lockout, the board shall, upon application, as hereinafter provided, and as soon as practicable thereafter, visit, if necessary, the locality of the dispute and make careful inquiry into the cause thereof, hear all persons interested therein who may come before them, advise the respective parties what, if anything, ought to be done or submitted to by either, or both, to adjust said dispute, and make a written decision thereof. This decision shall at once be made public, and shall be recorded upon proper books of record to be kept by the board.

SEC. 3. Said application shall be signed by said employer, or by a majority of his employes in the department of the business in which the controversy or difference exists, or their duly authorized agent, or by both parties, and shall contain a concise statement of the grievances complained of, and a promise to continue on in business or at work, without any lockout or strike, until the decision of said board, which must, if possible, be made within three weeks of the date of filing the application. Immediately upon the receipt of said application, the chairman of said board shall cause public notice to be given of the time and place for hearing. Should the petitioners fail to keep the promise made therein, the board shall proceed no further thereupon without the written consent of the adverse party. And the party violating the contract shall pay the extra cost of the board entailed thereby. The board may then reopen the case and proceed to the final arbitration thereof as provided in section two hereof.

SEC. 4. The decision rendered by the board shall be binding upon the parties who join in the application for six months, or until either party has given the other a written notice of his intention not to be further bound by the conditions thereof after the expiration of sixty days or any time agreed upon by the parties, which agreement shall be entered as a part of the decision. Said notice may be given to the employes by posting a notice thereof in three conspicuous places in the shop or factory where they work.

SEC. 5. Both employers and employes shall have the right at any time to submit to the board complaints of grievances and ask for an investigation thereof. The board shall decide whether the complaint is entitled to a public investigation, and if they decide in the affirmative, they shall proceed to hear the testimony, after giving notice

to all parties concerned, and publish the result of their investigations as soon as possible thereafter.

SEC. 6. The arbitrators hereby created shall be paid five dollars per day for each day of actual service, and also their necessary traveling and other expenses incident to the duties of their office shall be paid out of the State treasury; but the expenses and salaries hereby authorized shall not exceed the sum of twenty-five hundred dollars for the two years.

SEC. 7. The sum of twenty-five hundred dollars is hereby appropriated out of any money in the State treasury not otherwise appropriated, for the expenses of the board for the first two years after its organization.

SEC. 8. This Act shall take effect and be in force from and after its passage.

Approved March 10, 1891.

Viewing, now, the results of the aggregate labor legislation as hereinbefore set forth, as a practical factor in the adjustment of controversies in, and the elimination of strikes and lockouts from, the industrial world, it can not be said that large benefit has been derived, or that promise has been given that such benefit will be derived in future, from such legislation, along the lines desired.

In many cases the laws, after being enacted, have been allowed to remain simply inoperative or untried, and in other cases an attempt practically to apply their provisions in the settlement of industrial disputes has been made in but a desultory and inefficient way.

From various sources testimony is given, pro and con, as to the benefit arising from the arbitration law, hereinbefore noted, of New Zealand, New South Wales, and South and Western Australia. Such testimony is, however, so sharply conflicting that it is impossible to say therefrom whether said laws have been beneficial or detrimental to those interests which they are designed to harmonize.

The original authors of such legislation, and the original sponsors therefor, almost universally testify as to the benefit resulting therefrom, while, on the other hand, both employers and employes, in many cases, speak disparagingly of results attained.

Coming to the United States in this connection, and reviewing, briefly, the results achieved under the arbitration law of the United States, and of the several States as hereinbefore noted, it is found that, as to the said United States law, no practical use seems to have been made of its provisions.

As to New York, the arbitration board seems to have intervened in a number of controversies, with varying results, and it is said that there have been very few cases in which either party to a controversy, and almost no cases in which both parties to a controversy, jointly, have appealed to the board to assist in the settlement of difficulties, and that the fact is, that the initiative in the matter of mediation or arbitration, in almost every case, comes from the board itself, and not from the parties to the controversy.

Reports of the work of the arbitration board of Massachusetts indicate practically the same results, in connection therewith, as is shown

regarding the arbitration board of the State of New York, and in this connection it may be said, once for all, that a lack of unionism or unanimity of disposition at all times seems to appear as regards the matter of submitting controversies to arbitration, in the various States. Employés, parties to a controversy, will urge submission to arbitration while the employers refuse; in other cases, the situation will be reversed; and in still other cases, both parties will be strenuously opposed to such submission.

The arbitration boards of Illinois, Ohio, and Indiana seem to have acted, respectively, in a number of controversies, and with more or less success.

In New Jersey results under the law have been but meager, and in only a few cases does it appear that the parties to the controversy, or either of them, have been willing to invoke the services of the arbitration board for the settlement thereof.

The arbitration laws of Louisiana, Utah, Idaho, Michigan, Colorado, and Missouri seem, respectively, since their enactment, to have remained practically inoperative.

Coming again to the arbitration law of our own State of California, it appears that immediately following its enactment the Governor duly appointed three persons, to wit: Oliver Eldridge, Charles Grambarth, and Oscar Lewis, as members of the arbitration board, and the board was, by such members, duly organized, and thereafter elected a Mr. Albert May as secretary. No successors on this board have ever been appointed and there is no record of any work ever having been done by the board, or any report having been published by it as to its work, in the way of arbitration. Of the \$2,500 appropriated by the Act of 1891 itself, for the maintenance of the board for two years thereafter, only \$152.50 was ever drawn. The balance lapsed into the State treasury, and no appropriation for the board has since been made. This Act is still among the laws of the State, and can be brought to life whenever the Legislature sees fit to appropriate a sufficient amount for its maintenance and the Governor sees fit to appoint persons to act as members of the board of arbitration.

Coming again to the question of the utility of arbitration legislation as providing a method of settlement in cases of industrial controversy, be it remembered that in arbitration the parties to such controversy can, in the main, hope to do only what they might between themselves do if they would but exercise the conciliatory spirit and business judgment which should be carried into all discussions pertaining to business differences, to wit: simply urge a settlement which is fair and just to all concerned.

The fact that arbitration is at times resorted to in settlement of disputes between parties to other controversies, makes proof, in the minds

of many, that differences between employers and employés can be so adjusted as well.

Mark, however, an important distinction, as a rule, between the controversies of an employer and his employés, and differences of other kinds, as referred to, which is, that while in the case of the "other differences" named, the question passed upon usually is, "What *have* the parties *agreed* to do?" and in the controversy between the employer and his employés such question usually is, "What *shall* the parties *agree* to do?"

The first relates to what has been done in the past, the second to what shall be done in the future. The question of what one has agreed to do, it would seem, may well be left to the determination of an impartial third party. The proposition to thus submit to three parties for determination the question what one shall do in the future seems beset with difficulties.

One has but to look to the current news of the day and note therein the vast number of industrial disputes existing, and the very few thereof in which arbitration was being had or desired by the interested parties.

To understand how little disposition there is on the part of industry disputants to leave the settlement of their affairs to outsiders in the cases in which arbitration is invoked, it will be usually noticed that he who first says "arbitrate" is usually not he who feels confident of success, and that it is the coercion induced by a sense of weakness, or by some other coercive influence, and not a desire to see even justice done, which usually induces the willingness to arbitrate. On the other hand, there can be no such thing as effective compulsory arbitration, unless, with the arbitration court, in addition to the power to make the award, there rests a further power to enforce it, and therewith would follow the spectacle of wage-workers compelled to work against their will for wages, or under conditions unsatisfactory to them, and of employers compelled against their will to retain in their employ employés whom they do not desire to retain, and with wages and conditions of employment which they do not desire to grant, and all this would be repugnant to our ideas of liberty.

A notable feature in this connection is the fact that the consensus of sentiment among wage-workers of the United States is antagonistic to the idea of compulsory arbitration, and, as a rule, almost coldly indifferent to arbitration in a voluntary form.

Nothing of what is written here seeks to do aught other than to set forth facts, and certainly where the disposition so to do exists, nothing whatever stands in the way of the adoption of arbitration as a method of settlement in the case of any difference.

As this is being written, events are taking place in these United

States which may mark an epoch in the history of arbitration as applied to differences between wage-workers and their employers. After months of stubborn and bitter strife between thousands of employés on one side and numerous powerful corporations on the other, in the coal fields of Pennsylvania, over questions of rates of pay and hours of work, tremendous moral pressure brought to bear from many sources (including that of Theodore Roosevelt, President of the United States) has resulted in the parties agreeing to submit their differences to a court of arbitration appointed by the said President of the United States. That court has been appointed and consists of men from various walks of life and of known high character and integrity, and its sittings are now being held. What its ultimate findings and award will be no one can, at this time, forecast. What its effect will be upon arbitration as a method of settlement in cases of industrial strife is for future history to record.

Certainly the situation presented is one of worldwide interest and one which is being watched with close concern by labor and capital everywhere.

FINANCIAL STATEMENT.

FOR THE FIFTY-SECOND FISCAL YEAR ENDING JUNE 30, 1901, AND FOR
THE FIFTY-THIRD FISCAL YEAR ENDING JUNE 30, 1902.

FIFTY-SECOND FISCAL YEAR.

APPROPRIATIONS.

Salary of Commissioner	\$3,000 00
Salary of Deputy Commissioner	1,800 00
Salaries of Special Agents, and traveling and contingent expenses	2,500 00
Printing	875 00
Office rent	600 00
Brought forward from contingent fund of fifty-first fiscal year	188 85
Brought forward from printing fund of fifty-first fiscal year	785 95
	<u>\$9,749 80</u>

DISBURSEMENTS.

Salary of Commissioner	\$3,000 00
Salary of Deputy Commissioner	1,800 00
Salaries of Special Agents	2,003 00
	<u>\$6,803 00</u>
Printing	1,522 50
Office rent	600 00
Traveling expenses	259 30
Contingent expenses	404 33
	<u>\$9,589 13</u>

Total appropriations	\$9,749 80
Total disbursements	9,589 13

Unexpended balance, June 30, 1901..... \$160 67

SALARY ACCOUNT ITEMIZED.

F. V. Meyers, Commissioner, July 1, 1900, to July 1, 1901, at \$3,000 per year....	\$3,000 00
J. D. Kelsey, Deputy Commissioner, July 1, 1900, to July 1, 1901, at \$1,800 per year....	1,800 00
E. L. Reguin, Special Agent, July 1, 1900, to July 1, 1901, at \$1,200 per year....	1,200 00
K. Zwicker, Special Agent, July 1, 1900, to March 15, 1901, at \$720 per year....	509 03
E. Brosnan, Special Agent, March 15, 1901, to July 1, 1901, at \$720 per year....	210 97
L. M. Bevilockway, Special Agent, August and September, 1900.....	32 00
W. P. Day, Special Agent, June, 1901	51 00
	<u>\$6,803 00</u>

PRINTING ACCOUNT ITEMIZED.

Dec. 4, 1900—From State Printing Office, 3,000 copies Ninth Biennial Report of the State Bureau of Labor Statistics.....	\$1,140 00
Apr. 17, 1901—From State Printing Office, 50,000 letterheads, and 20,000 No. 6 envelopes	382 50
	<u>\$1,522 50</u>

OFFICE RENT ACCOUNT ITEMIZED.

Rent from July 1, 1900, to July 1, 1901, 12 months at \$50 per month.....	\$600 00
---	----------

TRAVELING EXPENSE ACCOUNT ITEMIZED.

1900.	
July.—E. L. Reguin, Special Agent, car and railway fare	\$7 65
Aug.—E. L. Reguin, Special Agent, car and railway fare	4 10
Sept.—E. L. Reguin, Special Agent, car and railway fare	1 10
Oct.—E. L. Reguin, Special Agent, car and railway fare	1 80
Nov.—E. L. Reguin, Special Agent, car and railway fare	2 05
F. V. Meyers, Commissioner, traveling expenses.....	3 00
Dec.—E. L. Reguin, Special Agent, car and railway fare	3 05
1901.	
Jan.—F. V. Meyers, Commissioner, mileage ticket for use of Bureau.....	25 00
E. L. Reguin, Special Agent, car and railway fare	3 05
J. D. Kelsey, Deputy Commissioner, car and railway fare.....	5 60
J. D. Kelsey, Deputy Commissioner, traveling expenses	2 75
F. V. Meyers, Commissioner, traveling expenses.....	1 50
F. V. Meyers, Commissioner, Pullman car fare.....	1 00
Feb.—F. V. Meyers, Commissioner, traveling expenses.....	6 65
F. V. Meyers, Commissioner, railway and Pullman car fare	5 00
J. D. Kelsey, Deputy Commissioner, traveling expenses	6 90
J. D. Kelsey, Deputy Commissioner, railway and Pullman car fare.....	10 50
E. L. Reguin, Special Agent, railway and car fare.....	2 50
Mar.—E. L. Reguin, Special Agent, railway mileage ticket	25 00
F. V. Meyers, Commissioner, traveling expenses	3 70
J. D. Kelsey, Deputy Commissioner, traveling expenses	9 05
E. L. Reguin, Special Agent, traveling expenses	2 00
J. D. Kelsey, Deputy Commissioner, railway fare	5 50
E. L. Reguin, Special Agent, car and railway fare.....	3 80
April—F. V. Meyers, Commissioner, railway mileage ticket, use of Bureau.....	75 00
E. L. Reguin, Special Agent, car and railway fare	3 05
J. D. Kelsey, Deputy Commissioner, car and railway fare	80
May—J. D. Kelsey, Deputy Com., railway mileage ticket, for use of Bureau..	25 00
J. D. Kelsey, Deputy Commissioner, car fare.....	1 95
E. L. Reguin, Special Agent, car and railway fare	3 25
June—J. D. Kelsey, Deputy Commissioner, car and railway fare.....	3 00
E. L. Reguin, Special Agent, car and railway fare.....	5 00
	<u>\$259 30</u>

CONTINGENT EXPENSE ACCOUNT ITEMIZED.

Telephone.....	\$103 95
Postage	196 15
Stationery.....	45 20
Freight and express charges	9 33
Miscellaneous	40 70
Mercantile Towel Co. (office towels)	9 00
	<u>\$404 33</u>

FIFTY-THIRD FISCAL YEAR.**APPROPRIATIONS.**

Salary of Commissioner.....	\$3,000 00
Salary of Deputy Commissioner	1,800 00
Salaries of Special Agents, and traveling and contingent expenses.....	2,500 00
Printing.....	625 00
Office rent.....	600 00
	<u>\$8,525 00</u>

DISBURSEMENTS.

Salary of Commissioner.....	\$3,000 00	
Salary of Deputy Commissioner	1,800 00	
Salaries of Special Agents.....	2,217 14	
		<u>\$7,017 14</u>
Office rent.....		600 00
Traveling expenses.....		78 40
Contingent expenses.....		179 12
		<u>\$7,874 66</u>
Total appropriations	\$8,525 00	
Total disbursements	7,874 66	
Unexpended balance, June 30, 1902.....	\$650 34	

SALARY ACCOUNT ITEMIZED.

F. V. Meyers, Commissioner, July 1, 1901, to July 1, 1902, at \$3,000 per year....	\$3,000 00
J. D. Kelsey, Deputy Commissioner, July 1, 1901, to July 1, 1902, at \$1,800 per year.....	1,800 00
E. L. Reguin, Special Agent, July 1, 1901, to July 1, 1902, at \$1,200 per year....	1,200 00
E. Brosnan, Special Agent, July 1, 1901, to July 1, 1902, at \$720 per year	720 00
W. P. Day, Special Agent, July, August, and December, 1901, and January, May, and June, 1902	297 14
	<u>\$7,017 14</u>

OFFICE RENT ACCOUNT ITEMIZED.

Rent from July 1, 1901, to July 1, 1902, 12 months, at \$50 per month.....	<u>\$600 00</u>
--	-----------------

TRAVELING EXPENSE ACCOUNT ITEMIZED.

1901.	
July— E. L. Reguin, Special Agent, car and railway fare	\$2 60
J. D. Kelsey, Deputy Commissioner, car and railway fare	65
Aug.— J. D. Kelsey, Deputy Commissioner, car and railway fare.....	2 10
E. L. Reguin, Special Agent, car and railway fare	3 85
Sept.— E. L. Reguin, Special Agent, car and railway fare	2 85
J. D. Kelsey, Deputy Commissioner, car and railway fare.....	1 45
Oct.— J. D. Kelsey, Deputy Commissioner, car and railway fare.....	1 95
E. L. Reguin, Special Agent, car and railway fare	4 95
Nov.— J. D. Kelsey, Deputy Commissioner, car and railway fare.....	2 40
E. L. Reguin, Special Agent, car and railway fare	3 20
Dec.— J. D. Kelsey, Deputy Commissioner, car and railway fare	1 75
E. L. Reguin, Special Agent, car and railway fare	5 30
J. D. Kelsey, Deputy Commissioner, traveling expenses.....	5 00
E. L. Reguin, Special Agent, traveling expenses.....	5 00
1902.	
Jan.— J. D. Kelsey, Deputy Commissioner, car and railway fare.....	2 65
E. L. Reguin, Special Agent, car and railway fare	3 60
Feb.— J. D. Kelsey, Deputy Commissioner, car and railway fare.....	3 55
E. L. Reguin, Special Agent, car and railway fare	1 40
Mar.— J. D. Kelsey, Deputy Commissioner, car and railway fare.....	3 50
E. L. Reguin, Special Agent, car and railway fare	4 45
April— J. D. Kelsey, Deputy Commissioner, car and railway fare.....	3 65
E. L. Reguin, Special Agent, car and railway fare	4 05
May— J. D. Kelsey, Deputy Commissioner, car and railway fare.....	2 15
E. L. Reguin, Special Agent, car and railway fare	3 10
June— J. D. Kelsey, Deputy Commissioner, car and railway fare	1 25
E. L. Reguin, Special Agent, car and railway fare	2 00
	<u>\$78 40</u>

CONTINGENT EXPENSE ACCOUNT ITEMIZED.

Telephone.....	\$101 90
Postage.....	36 00
Stationery.....	25 32
Miscellaneous.....	6 90
Mercantile Towel Co. (office towels).....	9 00
	<hr/>
	\$179 12

A law of this State requires the official head of any State institution for which money, other than for salaries, is appropriated by the State, to submit a detailed statement of the manner in which all money thus appropriated has been expended, and in accordance therewith, the foregoing statement, covering the fifty-second and fifty-third fiscal years, is submitted.

It will be noted therein that of the appropriation made for salary of the Commissioner, salary of the Deputy Commissioner, and for office rent for the fifty-second fiscal year, the full amount was expended.

It will be noted further, that at the end of the said fiscal year, an unexpended balance of \$160.67 appeared to the credit of the Bureau. Of this unexpended balance, some \$22 remained in the fund appropriated for salaries of special agents, traveling and contingent expenses, and \$138 thereof remained in the fund appropriated for printing for the Bureau. These sums, or an aggregate of \$160.67, reverted, under the law, to the general treasury of the State.

As regards the sums appropriated, as shown, for salary of the Commissioner, salary of the Deputy Commissioner, and for office rent for the fifty-third fiscal year, the full amounts appropriated have been expended; there remained, at the end of the said fiscal year, to the credit of the Bureau, an unexpended balance of \$650.34. Of this unexpended balance, some \$25 remains in the fund appropriated for the salaries of the special agents, and for traveling and contingent expenses, and some \$625 remains in the fund appropriated for printing for the Bureau.

The said sum of \$25 is carried forward, under the law, and added to the appropriation for salaries of special agents and for traveling and contingent expenses of the Bureau for the fifty-fourth fiscal year.

The said sum of \$625 is likewise carried forward and added to the printing fund of the Bureau for the fifty-fourth fiscal year, thus making to the credit of the Bureau, in the last-named fund, at this writing, the sum of \$1,250.00.

Now, however, the cost of the printing of the herewith report must be immediately incurred, and the said sum of \$1,250 will necessarily be almost, if not quite, entirely expended for such printing.

APPENDIX.

LABOR LAWS OF THE STATE OF CALIFORNIA ENACTED SINCE THE YEAR 1900.

NOTE.--For Compilation of the Labor Laws of the State of California, enacted prior to 1900, see Ninth Biennial Report of this Bureau, page 126, *et seq.*

LABOR LAWS OF THE STATE OF CALIFORNIA.

Lunch Hour for Laborers in Sawmills, Etc.

(Stats. of Cal. 1901, p. 75.)

SECTION 1. Every person, corporation, co-partnership, or company operating a sawmill, shakemill, shinglemill, or logging-camp, in the State of California, shall allow to his or its employés, workmen, and laborers a period of not less than one hour at noon for the midday meal.

SEC. 2. Any person, corporation, co-partnership, or company, his or its agents, servants, or managers, violating any of the provisions of this Act, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not more than two hundred dollars nor less than one hundred dollars for each violation of the provisions of this Act.

SEC. 3. This Act shall take effect and be in force on the first day of April, nineteen hundred and one.

Hours of Service of Policemen, Etc.

(Stats. of Cal. 1901, p. 107.)

SECTION 1. In all cities of the first class and cities and counties of this State where a regular police department is maintained, patrol captains, lieutenants, sergeants, and regular officers shall be required to serve on duty not longer than eight hours in every twenty-four hours; provided, that in case of riot or other emergency every attaché of the police department shall perform such duty and for such time as the directing authority of the department shall require.

SEC. 2. This Act shall take effect immediately.

Liens for Services for Laundry Work, Etc.

(Stats. of Cal. 1901, p. 270.)

SECTION 1. Section three thousand and fifty-one of the Civil Code of California is hereby amended so as to read as follows:

3051. Every person who, while lawfully in possession of an article of personal property, renders any service to the owner thereof, by labor

or skill, employed for the protection, improvement, safe-keeping, or carriage thereof, has a special lien thereon, dependent on possession, for the compensation, if any, which is due to him from the owner for such service; and livery or boarding or feed stable proprietors, and persons pasturing horses or stock, have a lien, dependent on possession, for their compensation in caring for, boarding, feeding, or pasturing such horses or stock; and laundry proprietors and persons conducting a laundry business have a general lien, dependent on possession, upon all personal property in their hands belonging to a customer, for the balance due them from such customer for laundry work.

SEC. 2. This Act shall take effect immediately.

Number of Days of Labor in a Week.

(Stats. of Cal. 1901, p. 479.)

SECTION 653e. (Commissioners' amendment, approved March 16, 1901.) Every employer who causes his employés, or any of them, to work more than six days in seven, except in a case of emergency, is guilty of a misdemeanor, whether the employé is engaged by the day, week, month, or year, and whether the work performed is done in the day or night time.

(Believed to be unconstitutional in the light of the decision of the Supreme Court of California in the case of *Lewis vs. Dunne*.)

Hours of Labor on Public Work.

(Stats. of Cal. 1901, p. 479.)

SECTION 653f. (Commissioners' amendment, approved March 16, 1901.) Every officer of this State, or of any political division thereof, or any person acting for or on behalf thereof, and any contractor or subcontractor for any part of any public work or works done for such State or political division, and every person, corporation, or association which employs, directs, or controls the services of any laborer, workman, or mechanic in any such work, who requires them, or any of them, to labor more than eight hours in any one calendar day, except in cases of extraordinary emergency caused by fire, flood, or danger to life or property, and except work upon public military or naval defenses in time of war, is guilty of a misdemeanor.

(Believed to be unconstitutional in the light of the decision of the Supreme Court of California in the case of *Lewis vs. Dunne*.)

Wages Due Laborers from the State, etc.

(Stats. of Cal. 1901, p. 480.)

SECTION 653g. (Commissioners' amendment, approved March 16, 1901.) Every person who employs laborers upon public works, and who takes, keeps, or receives any part or portion of the wages due to any such laborers from the State or municipal corporation for which such work is done, is guilty of a felony.

(Believed to be unconstitutional in the light of the decision of the Supreme Court of California in the case of *Lewis vs. Dunne*.)

Hours of Labor on Public Works; Provisions for Imposing Penalties, etc.

(Stats. of Cal. 1901, p. 561.)

SECTION 1. The time of service of all laborers, workmen, and mechanics employed upon any public works of, or work done for, the State of California, or for any political subdivision thereof, whether said work is done by contract or otherwise, is hereby limited and restricted to eight hours in any one calendar day; and it shall be unlawful for any officer of the State, or of any political subdivision thereof, or for any person, corporation, or association acting in behalf thereof, whose duty it shall be to employ, or to direct and control the services of such said laborers, workmen, or mechanics upon any of the abovesaid public works, or who have, in fact, the employment, or the direction and control of the services of such said laborers, workmen, or mechanics upon any of said works, to require or permit them, or any of them, to labor thereupon more than eight hours in any one calendar day, except in cases of extraordinary emergency caused by fire, flood, or danger to life, property, or except to work upon public military or naval works or defenses in time of war.

SEC. 2. In every case in which a contract is made for or on behalf of the State of California, or for or on behalf of any political subdivision thereof, which involves the employment of laborers, workmen, or mechanics to do work to be done upon the public works of, or work to be done for the said State, or for the said political subdivision thereof, under the terms of said contract, the officer, board, commission, or other agent or agency of the said State, or of the said political subdivision, acting for or on behalf of said State, or of said political subdivision, as the case may be, in making and awarding the said contract, shall cause to be inserted therein and to be agreed to by every person, firm, or corporation to whom said contract or any interest therein is awarded, as a condition upon which

such award is made and accepted, a stipulation, namely: That no laborer, workman, or mechanic employed at any time by the said contractor or contractors, or by any subcontractor or subcontractors under him or under them, upon the work, or upon any part of the work contemplated by the said contract, shall be required or permitted to work thereupon more than eight hours in any one calendar day, except in cases of extraordinary emergency caused by fire, flood, or danger to life or property, or except to work upon public military or naval works or defenses in time of war; that the said contractor or contractors thereby agrees or agree to forfeit, out of any moneys becoming due to him or to them from the State, or from the political subdivision thereof, as the case may be, under the terms of the said contract, the sum of ten dollars for each laborer, workman, or mechanic, for each and every calendar day upon which he shall labor more than eight hours in violation of the terms of the said stipulation, and that the State, or the political subdivision thereof, as the case may be, is thereby authorized and directed to, through its proper representatives, withhold from the said contractor, or from the said contractors, as the property of the State, or of the political subdivision thereof, as the case may be, all sums forfeited as described under the terms of the said stipulation. It shall be the duty of the officer, board, commission, or other agent or agency of the said State, or of the said political subdivision thereof, as the case may be, acting for or on behalf of said State, or of said political subdivision, in making and awarding any contract such as is described in this section, to take cognizance of all violation of the herein provided for stipulation in said contract, and to report the same to the officer, or other person, representing the said State, or political subdivision thereof, whose duty it shall be to pay the moneys due under such contract, and it shall be the duty of such officer, or other person, when making payment of moneys thus due, to withhold and retain, in accordance with the provisions of this section, all sums which may have been forfeited under the provisions of the herein provided for stipulation. Nothing in this Act shall be construed to authorize the collection of a forfeiture as described herein from the State, or from any political subdivision thereof. Any contract such as is described in this section, made for or on behalf of the State of California, or for or on behalf of any political subdivision thereof, which does not contain the stipulation herein described, shall be null and void, and no recovery shall be had thereupon.

SEC. 3. Any officer of the State of California, or any political subdivision thereof, or any person acting for or on behalf thereof, who shall violate the provisions of this Act, shall be deemed guilty of a misdemeanor, and be subject to a fine or imprisonment, or both, at the discretion of the court, the fine not to exceed five hundred dollars, nor the imprisonment one year.

SEC. 4. All Acts and parts of Acts inconsistent with this Act, in so far as they are inconsistent, are hereby repealed.

SEC. 5. This Act shall take effect and be in force from and after its passage.

Proper Sanitary Condition of Factories, etc.

(Stats. of Cal. 1901, p. 571.)

SECTION 1. Section four (4) of "An Act to provide for the proper sanitary condition of factories and workshops, and the preservation of the health of the employes," approved February sixth, eighteen hundred and eighty-nine, is hereby amended so as to read as follows:

Section 4. In any factory, workshop, or other establishment where a work or process is carried on by which dust, filaments, or injurious gases are generated or produced, that are liable to be inhaled by persons employed therein, the person, firm, or corporation by whose authority the said work or process is carried on shall cause to be provided and used in said factory, workshop, or establishment an exhaust fan or blower, with pipes and hoods extending therefrom to each wheel or other apparatus used to grind, polish, or buff metals. The said fan or blower, and the said pipes and hoods, all to be properly fitted and adjusted, and of power and dimensions sufficient to effectually prevent the dust and filaments produced by the abovesaid metal-polishing, metal-grinding, or metal-buffing from escaping into the atmosphere of the room or rooms of said factory, workshop, or establishment where persons are employed.

SEC. 2. Section six (6) of the said Act is hereby amended so as to read as follows:

Section 6. Any person or corporation violating any of the provisions of this Act is guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than fifty dollars nor more than three hundred dollars, or by imprisonment in the county jail for not less than thirty days nor more than ninety days, or by both such fine and imprisonment, for each offense.

Exclusive Right of Native-Born and Naturalized Citizens to Employment on Public Works.

(Stats. of Cal. 1901, p. 589.)

SECTION 1. No person, except a native-born or naturalized citizen of the United States, shall be employed in any department of the State, county, city and county, or incorporated city or town government in this State.

FOURTH REPORT

OF THE

STATE DAIRY BUREAU

TO THE

GOVERNOR OF THE STATE OF CALIFORNIA.

1900-1902.



SACRAMENTO:

A. J. JOHNSTON, : : : : SUPERINTENDENT STATE PRINTING.
1902.

THE STATE DAIRY BUREAU.

JOHN A. BLISS, <i>Chairman</i> ,	-	-	-	-	-	-	-	OAKLAND.
DR. THOMAS FLINT,	-	-	-	-	-	-	-	SAN JUAN.
JOHN FLANNERY,	-	-	-	-	-	-	-	SAN JOSÉ.

J. M. THOMAS, <i>Agent and Secretary</i> ,	-	-	-	-	-	SAN FRANCISCO.
WM. H. SAYLOR, <i>Chemist and Assistant Secretary</i> ,	-	-	-	-	-	SAN FRANCISCO.

Office: 114 California Street, San Francisco.

CONTENTS.

	PAGE.
THE STATE DAIRY BUREAU	2
LETTER OF TRANSMITTAL	5
REPORT OF DAIRY BUREAU	7
OLEOMARGARINE	8
GROWTH OF OLEOMARGARINE PRODUCTION	10
FEDERAL OLEOMARGARINE LAW	10
"PROCESS" BUTTER	12
CHEESE	13
MILK	14
CHEMICAL PRESERVATIVES	16
BOVINE TUBERCULOSIS	16
LABORATORY WORK	18
DAIRY EDUCATION	18
DAIRY STATISTICS	19
Butter	19
Production of Butter for the two years ending October 1, 1901 and 1902	20
Butter in San Francisco	22
Cheese	23
Cheese Production for the years ending October 1, 1901 and 1902	23
Cheese Receipts in San Francisco	23
Butter and Cheese Prices	24
Condensed Milk	24
Annual Value of the Dairy Output	25
Dairy Exports	25
CREAMERIES	26
CONCLUSION	27
FINANCIAL STATEMENT	28
REPORT OF THE CHEMIST	29
CHEESE	30
MOISTURE DETERMINATIONS	31
BABCOCK TEST-BOTTLES	32
MILK AND CREAM TESTS	32
CREAMERIES OF CALIFORNIA	33
CONDENSED MILK FACTORIES	38
CHEESE MANUFACTURERS	39
APPENDIX—	
LAW RELATIVE TO BUTTER AND CHEESE	46
"PROCESS" BUTTER LAW	51
CHEESE-GRADING LAW	52
STATE VETERINARIAN ACT	53
LAW RELATING TO BABCOCK TESTING APPARATUS	56

SAN FRANCISCO, October 1, 1902.

To His Excellency HENRY T. GAGE, Governor of the State of California:

SIR: In compliance with the requirements of an Act of the Legislature, approved March 4, 1897, we have the honor to submit herewith the fourth report of the State Dairy Bureau for the two years ending October 1, 1902.

Respectfully,

JOHN A. BLISS,
Chairman.

J. M. THOMAS, Agent and Secretary.

FOURTH REPORT.

The work of the State Dairy Bureau during the two years covered by this report has been curtailed, over that of the two preceding years, by the failure of the last session of the Legislature to continue the Act to provide for the inspection of dairy animals and dairies in order to secure better sanitary conditions surrounding the manufacture of products of the dairy. As stated in the preceding report of the Bureau, the law under which the system of inspection was carried out was one of such apparent and admitted weakness that its impracticability resulted in very little, if any, satisfactory results. Of the necessity for the renewal of the control of the sanitary conditions of our dairies, creameries, and cheese factories, we shall have occasion to refer to again.

With the elimination of the work involved in carrying out the provisions of the dairy inspection law, the duties of the Bureau have been confined to carrying out the law relating to butter and cheese adulteration, generally referred to as the "oleomargarine law," approved March 4, 1897, the law covering the grading and branding of cheese made in the State, and the law regulating the manufacture and sale of "process" or "renovated" butter. Immediately after the expiration of the time for which the appropriation under the Dairy Inspection Law was made, the Assistant Agents employed as dairy inspectors under that law were dismissed, and the only employes now in the Bureau are the Agent and Secretary and the Chemist.

It appearing to the present members of the Bureau that the duties in the office and the laboratory are not sufficient to justify them in keeping both the Agent and Secretary and the Chemist constantly in the office and at the same time employ others to look out for violations of the laws throughout the State, they have deemed it advisable to place the duties in both the laboratory and office upon the Chemist, who has, therefore, acted as Chemist and Secretary under the direction of the Agent and Secretary. By doing this, the Agent and Secretary has been enabled to devote his time entirely to a thorough inspection of the markets in the various cities and towns of the State for violations of the laws. The services of other inspectors who have been employed from time to time and paid for at a per diem have been dispensed with.

It is with regret that, as in our former report, we have to report the death of another member of the Bureau. George W. Burbank, of Marin County, who has been a member of the Bureau since its inauguration

in 1895, died March 15, 1901. In his death the Bureau lost an efficient worker, not only in his duties in connection with his office, but in the welfare of the dairy industry of California in general. Engaged in the dairy business on a large scale since the early pioneer days, he was one of the first to recognize the advantages of the creamery system in California, which is the basis upon which the dairy industry of the State has made such marvelous growth. With confidence in this system, he invested capital and became the head of the largest creamery, a model of mechanical perfection, in the State for a number of years. As a dairyman he was conservative in his undertakings, but progressive along those lines in which he had faith in success. His dairy and herd of excellent cows have been an inspiring example of intelligence and enterprise applied to the occupation of a dairyman. His sterling integrity and sound judgment resulted in his selection for various public offices of trust, and during the most of his maturer years he has served in one office or another, generally against his wishes. Personally modest in demeanor, generous and kind to his fellowmen, and a model citizen, his loss is one to cause deep regret to all who knew his sterling qualities.

We are pleased to report two years full of prosperity for the dairymen and creamerymen. Although, as will be shown by statistics, the increase in the products of the dairy has been large, placing California in the front rank of States noted for dairy productions, prices have been better than in recent years, and our dairymen have been liberally compensated. The profits that have accrued to our dairymen have and are attracting a great many farmers in this and other States to engage in the business, which will soon necessitate our looking for markets beyond the State line, and in this effort the general coöperation and direction by State authority can be made a great aid. Other States, and countries as well, have been largely instrumental in building up industries. California has done much effective work to foster the horticultural interests of the State, and we are positive that similar encouragement will be even more fully compensated by the dairy industry.

OLEOMARGARINE.

Although every effort has been made to ascertain if any oleomargarine has been used or is being used in the State in violation of the law which the Bureau is charged to enforce, it is pleased to report that with the exception of some traffic in the material in the southern part of the State, the law has been thoroughly respected. During the fall of 1901 the Agent of the Bureau discovered that contractors on railroad work and some other enterprises requiring large numbers of laborers were using oleomargarine on the bill of fare of employés whose board formed

a part of their compensation, which is contrary to the law. The oleomargarine was shipped direct from Eastern dealers and makers to the contractors, although there can be no doubt but that the orders were solicited and forwarded by local dealers.

After securing sufficient evidence a complaint was entered against Robert Shearer, a railroad construction contractor of Los Angeles, who had forces of laborers at several points in Southern California, for supplying oleomargarine as a part of the board of his employés, without giving the proper notice, which was a part of the compensation for their labor. When the defendant was taken into a police court, upon the advice of his attorney, he pleaded guilty and was fined \$50.

Another similar case was that of A. P. Cross, who had the contract for sprinkling the streets of Los Angeles. He also employed a number of laborers to whom he furnished board, using oleomargarine in violation of the law. He was arrested, and when taken into court, pleaded guilty and was fined \$50.

A third instance of where the law was similarly violated was in a construction camp of the Pacific Construction Company, engaged in work on the Salt Lake & Los Angeles Railroad. When its use was discovered by the Agent of the Bureau, an investigation clearly showed that the purchasers of the oleomargarine had no knowledge of the illegality of the manner in which they used it. When their attention was called to it, they regretted it very much and immediately returned the unused portion of their supply to the dealers who had imposed upon them. Under the circumstances, the Bureau did not seem to be justified in prosecuting the case.

Through the publicity these cases aroused, other contractors at other points, where the officers of the Bureau had good reason to believe it was being used, immediately gave up using it, for, although a careful vigilance has been constantly kept upon this line of business as well as the usual channels of trade, the Bureau has been unable to find the least evidence of any oleomargarine being used in the State.

The Bureau believes that to this policy of following up the least clew indicating that oleomargarine is being used by any one contrary to law, even if in limited amounts, and bringing it to an issue at once, is largely due the credit for the fact that it is practically a thing of the past, so far as California is concerned. Had the Bureau ignored these minor violations of the law and let the traffic increase to more important proportions, and then made a crusade against it, there is no doubt but that it would have attracted greater attention for its usefulness; but although this policy is often pursued by institutions of this kind, this Bureau could not tolerate a policy so dangerous to the real objects for which it was created.

In former reports this Bureau had occasion to refer to the fact that

oleomargarine was regularly used in the rations of the inmates of the Home for Disabled Veterans at Santa Monica, Los Angeles County. This being an institution under the control of the Federal Government, the Bureau could, of course, do nothing to prevent it from using the material other than to bring its influence and that of the dairymen of the State to bear upon the officers of the institution to use genuine butter instead of the substitute. The Bureau is pleased to report that at the present time this institution is using California butter and not Eastern oleomargarine.

While we may congratulate the dairy interests of California, and the consumers of butter as well, that this great fraud has practically been suppressed through the efforts of the State Dairy Bureau, we would call attention to the fact that the only safety for the future is in a continued thorough vigilance. Other States in the Union, with equally as stringent legislation against the fraudulent sale of oleomargarine as butter, have still to contend with the aggressiveness of the oleomargarine interests. As the accompanying table, which has been kindly furnished by the Commissioner of Internal Revenue of the United States, shows, notwithstanding the aggressive warfare against the oleomargarine fraud, the production of the article continues to increase:

Growth of Oleomargarine Production.		Total Production. Pounds.
1887 (from November 1, 1886)	-----	21,513,537
1888	-----	34,325,527
1889	-----	35,664,026
1890	-----	32,324,032
1891	-----	44,392,409
1892	-----	48,364,155
1893	-----	67,224,298
1894	-----	69,622,246
1895	-----	56,958,105
1896	-----	50,853,234
1897	-----	45,531,207
1898	-----	57,516,136
1899	-----	83,130,474
1900	-----	107,045,028
1901	-----	104,943,856
Total	-----	859,589,360

FEDERAL OLEOMARGARINE LAW.

In our former report mention was made of the vigorous efforts then on foot to secure the enactment of a law by Congress to place a tax of ten cents a pound on oleomargarine colored in imitation of butter, and of one fourth of a cent when not colored to imitate butter. The purpose of the bill was to make it entirely impossible for any one to sell oleomargarine in place of butter, the ten-cent tax being prohibitive at the

usual prices of the article. The Dairy Bureau is pleased to report that a law embodying this principle was enacted at the last session of Congress and has been in operation since the first of July. At this time it is impossible to determine as to what effect the new law has had in curtailing the traffic in oleomargarine, but reports from some other States indicate that the producers are determined to continue to keep up their business. Their efforts now are being confined along the line of popularizing uncolored oleomargarine and in preparing a grade of goods that will imitate genuine butter without the use of artificial coloring matter prohibited by the law. As already stated, it is too early to say whether these efforts are practical or not, and as to whether the law will accomplish its purposes fully or not.

In this connection we desire to call attention to a feature of great importance to butter-producers. In recent years, on account of the increasing amount of butter produced during the season when green feed is not available, and in those sections of the country where the nature of the green feed is such as to impart to butter only a pale color of yellowness, if any, as is the case especially with alfalfa, which is California's principal forage plant, the standard for color in butter has been reduced from a rather deep shade of yellow to one of a very pale shade. The color being applied artificially, there has been this tendency to reduce it, to which there was, of course, no objection. But with the enactment of this new Federal law, which relieves uncolored oleomargarine of practically all restrictions, it is plain to be seen that it opens the field for this uncolored article to be sold in place of the light-colored shades of pure butter. Furthermore, the manufacturers of oleomargarine are using every effort to circumvent the purpose of the law by endeavoring to find ingredients that will impart some yellowness to butter without having to resort to strictly artificial coloring matters, which is prohibited by the law.

This Bureau realizes that there is a great difference of opinion among butter-producers themselves as to whether butter should be artificially colored or not; but from the present relations of uncolored oleomargarine with butter of a light color there seems to be but one thing to do, and that is for the producer of butter to color his product in a shade of yellowness that will distinctly prevent its being mistaken for uncolored oleomargarine. In this connection the Dairy Bureau does not wish to be understood as favoring coloring with promiscuous compounds, which may be dangerous to health, but since there are coloring materials available that are perfectly harmless, the selection should be confined to perfectly harmless brands.

A short time prior to the date when the law became operative, the Dairy Bureau was informed, by letters from several large makers of oleomargarine in the East, and by one firm which produced it in this

State before the Bureau was in existence, that it was their intention to renew the sale of the uncolored article here. As a result of this declaration the Bureau has redoubled its vigilance, but is pleased to report that it has been unable to find any of the goods or any evidence of its being in the markets.

"PROCESS" BUTTER.

A strict lookout has been kept by the officers of the Bureau to ascertain whether "process" or "renovated" butter has been brought into the State in violation of the law enacted in 1899, and which the Bureau is directed to enforce. As this description of butter is only understood by a part of the public, not even by many dairymen and creamerymen, since it has never been produced in the State, a word in explanation will not be amiss.

In many of the farming districts in the East, and especially where there are no public creameries, a great amount of butter is made in a small way on farms, generally by poor facilities and incompetent methods, which is of a very inferior quality and for which there is no market, but which usually finds its way into the markets and there accumulates, becoming still more rancid and worthless. It is this class of goods which the owners of "process"-butter factories buy in large quantities and treat by their "process" so as to remove the rancidity. There are different methods of accomplishing this end, but they consist principally in melting the butter and by allowing it to settle and treating with chemicals which remove, or neutralize, the compounds that are the cause of the rancidity. This fat is then solidified into a granular state and churned in milk and worked and salted in the usual manner, but generally so manipulated as to contain excessive amounts of water.

This process gives a product free from the rancidity, and is of acceptable quality, although only temporary. Nevertheless, by its temporary sweetness it is generally sold as fresh creamery stock. So serious has this substitution become that many of the States where dairying is prominent have legislated so as to compel manufacturers of "process" butter to brand their goods in a manner that will reveal their true character. Congress has also taken up the matter by including it in the oleomargarine law, already referred to, and placing upon it an internal revenue tax of one fourth of a cent a pound, besides paying an annual manufacturers' license of \$50.

Prior to 1899, when the "process"-butter law was enacted in this State, considerable quantities of this line of goods were shipped into the State, but it is a pleasure to report that our butter-dealers, appreciating what it means for the dairy industry of California to have the State free from such injurious substitutes, have desisted from handling it, and we are positive that no trade is being done in the material.

In this connection a word might be said in reference to the quality of our butter. These "process"-butter factories are usually located in districts where there is produced an enormous amount of low-grade butter, often making it necessary to draw from a large territory to procure the necessary raw material. California has been looked into as a possible field for such an industry, but it is gratifying to report that, although she is a large producer of butter, these investigations showed that there was not enough poor butter produced here to warrant such an enterprise. There is, in fact, a limited market for low-grade butter in the State, mostly confined to the bakery trade. But even this trade for a number of years has had to be supplied largely by low-grade stock which our dealers had to have shipped into the State. In former years the goods procured for this purpose were of the "process" variety, but at the present time what is known in the trade as "ladles," or repacked stock, fills the demand. About the only butter brought into the State in recent years is of this cheap variety.

It is indeed gratifying to state that while California may not make the highest quality of butter, the elimination of the production of these extremely low grades gives California an all-round average for quality in her product that we can safely say exceeds any other State.

CHEESE.

The cheese industry in California is on a rather primitive and unsatisfactory basis. In fact, the best cheese on our markets to-day is made outside of the State and comprises about twenty per cent of all that is consumed. A thorough investigation and knowledge of the cheese business as conducted in California convinces us that, notwithstanding statements to the contrary, as good cheese can be made in this State as anywhere, all that is required being greater skill and care on the part of the maker. Our cheese-makers are not as skillful as they should be, which we attribute largely to the practice of individual dairymen making cheese from their own herds, and generally in comparatively small quantities. On this scale most of the cheese in the State is made, instead of the dairymen delivering their milk to a central factory, as is practiced in other States. It is obvious that these small producers can not afford to employ the most expert cheese-makers, but, on the contrary, it is the common practice for our cheese-producers to employ a cheese-maker at ordinary farm wages, who, in addition to making cheese, is expected to make himself useful in all the general work about the dairy. Cheese-making is an art that demands infinitely more skill than the common observer thinks is involved, and those who are expert in this profession are generally well compensated. Cheese-makers who

come to California from districts in other States where this State procures its best cheese, soon find to their disappointment that California does not offer any opportunities for their profession.

In its former reports the Dairy Bureau has called the attention of cheese-makers to the necessity of turning out a better article by studying the scientific principles involved, but it is apparent that our primitive and pioneer ways have a strong hold upon our cheese-producers. It might be said in this connection that many of our cheese-producers attribute this state of affairs to the dealers. It is noteworthy that in the past some of our cheese-producers have gone to the expense of placing their business on the Eastern basis by employing an expert to make a good Cheddar cheese and giving it the necessary time for proper curing, but it is charged that the dealer discriminates against the home product thus made in favor of that which he can buy in the East, even admitting that the quality is fully equal. Under these circumstances our cheese-producers assert that the extra expense of the Cheddar process is not warranted.

A feature which worked a great injury to the cheese industry of the State in former years, by injuring the average quality, was the practice of making cheese from skimmed and partly-skimmed milk, the fat of the milk being used for butter-making. Such cheese is of a very inferior quality, and to prevent the practice the Legislature in 1897 enacted a law requiring all such cheese to be so branded, and directed the State Dairy Bureau to enforce it. A careful investigation and numerous analyses of cheese by the Chemist indicate that this description of cheese is a thing of the past.

MILK.

The question of greatest moment in the minds of those identified with the dairy industry is that of the increasing public interest in the sanitary and hygienic quality of milk dispensed to residents of cities and towns. Whatever grounds there may be for it, there is a universal impression that the milk consumed in its natural state is more closely related to the public health than any other article of food. In many instances there is probably no doubt that there is an over-agitation of this subject, which works an injury to the dairymen, whether deserving it or not. Most of the important cities and towns of the State make, at least, spasmodic attempts to control the milk dispensed to their citizens in relation to its sanitary and hygienic condition. These efforts are usually intrusted to local health officials, who prescribe rules and regulations to govern the dairymen, with inspectors to see that they are enforced. The practical, conservative dairyman is invariably unable to

realize the need of some of these precautions in the handling of his product, and the extra expense involved invariably causes him to vigorously oppose these measures, and in many cases his opposition renders these efforts toward sanitary control utterly ineffective. As a result, California is not making the progress in this direction that other places are doing, judging from the reports of effective work accomplished. A majority of the dairies where milk is produced for the cities are outside of their limits, so that a municipal officer has no authority to inspect, except upon the provision that without permission to inspect them they are unable to obtain a city license to retail their product. It happens, however, that where the producer in the country ships his milk to a licensed retailer, there is no provision for any sanitary control whatever over such dairies, and it is only necessary to visit some of these dairies to see the often primitive and unsanitary methods pursued in producing milk and the condition of the herds. Filth, manure, odors, and flies are often the conspicuous elements.

The objection to the unsanitary and unhygienic condition of the dairyman's milk is not only confined to that which is sold to be used as such, but it is receiving a great amount of complaint from creamery and cheese-factory managers. In fact, it is too true that many patrons of creameries and cheese factories care little in what condition their milk is delivered, so long as it is accepted and goes into the general product of the plant. On account of the fermentive processes that are involved in making the highest quality of butter and cheese, and which fermentation must be controlled along strict lines, it is easy to see how the delivering, to a factory, of milk that is already contaminated with objectionable odors, filth, and germ life works to the injury of the product. But this is not the worst feature of annoyance to the creamery operator. It takes only a small amount of such milk, maybe that of a single patron, to set at naught all the good intentions of the other patrons. The only alternative is for the creamery operator to reject milk in such a condition; but this is often impossible, owing to the keen competition of different plants in dairy sections.

The operators of creameries and cheese factories have therefore joined the general crusade in behalf of compelling producers of milk to deliver a better and purer article. If a reform in this matter could be brought about, it is easy to see what its result would be on the quality of our butter and cheese. Eastern States and European countries, who jealously guard the quality of their dairy products, have done effective work in this direction, and our lawmakers, both municipal and State, should readily see the grounds for some action along this line in order that the dairy industry may develop to the extent that the natural advantages of our State warrant.

CHEMICAL PRESERVATIVES.

In this connection it is in place to again call attention to the baneful practice of using antiseptic preservatives in milk. Instead of decreasing, the Bureau has every reason to believe that their use is on the increase. Aside from the fact that the antiseptic compounds generally employed are injurious to health—a fact which no unbiased authority will deny—the further consideration that their use is only made necessary in cases where milk is not handled with cleanliness and properly aerated and cooled is sufficient to condemn their use.

A dairyman who produces milk which receives the proper care does not require these compounds to preserve it, and their presence is a sure indication of a careless dairyman working under unsanitary conditions.

It is generally argued by advocates of the harmlessness of preservative compounds in milk, that they are a necessity by reason of the fact that as our cities grow larger in population it becomes necessary to reach farther into the country for the necessary supply of milk for their inhabitants, thus necessitating a longer time in transit, so that the length of its usefulness to the consumer is limited. While this is true, it has been thoroughly demonstrated that with proper care in handling and with proper cooling the usefulness of fresh milk may be sufficiently prolonged for the general consumer's purpose. Failing in this, the practice of pasteurizing is a certain and beneficial means of solving this difficulty. It is a notable fact that in Eastern cities pasteurization of milk is extensively practiced, a system which has every scientific indorsement, while in our California cities the system is practically unknown. The Bureau believes that this is largely due to the permission the milkmen have to apply these antiseptics to their milk, since it is much cheaper to preserve milk in this manner than to take the steps along proper sanitary lines or even pasteurizing.

The Bureau is of the opinion that more effective legal restraint on this objectionable practice is earnestly demanded by the public welfare. Eliminating the use of these antiseptic preservatives will be sure to compel producers of and dealers in milk to take steps to conduct their business in a more sanitary and hygienic manner.

BOVINE TUBERCULOSIS.

A few years ago the dairy interests of the State were deeply aroused over the problem of the prevalence of tuberculosis among dairy cows, and its relation to the public health. Upon this subject the Dairy Bureau has commented fully in each of its former reports. In the first, attention was called to the arbitrary stand taken by health authorities in various parts of the State to the effect that all dairy animals reacting

to the tuberculin test, indicating the presence of tuberculosis, were a menace to the public health by reason of a strong possibility of the disease being conveyed to human beings. For this reason they demanded the immediate destruction of all animals reacting to the tuberculin test, and a large number of dairy cows were consequently slaughtered. In some herds the loss in this manner amounted to fifty per cent, resulting in great financial loss to many dairymen.

The natural result of this course was, as could be expected, the combined opposition of owners of dairy cows, which was so successful that within the last four years the idea of eradicating or controlling tuberculosis among dairy cattle has been altogether dormant.

It is with interest, however, that we call attention to a most important phase of this question which has arisen within the last year. We refer to the remarkable declaration of the world-famous bacteriologist, Dr. Robert Koch, before the International Congress on Tuberculosis, which convened in London in 1901, to the effect that the bacilli of bovine and human tuberculosis were distinct types, and that there is little probability of these bacteria communicating the disease from one to the other. That human tuberculosis could not be transmitted to bovines he was satisfied, from the results of his own elaborate experiments. Upon the reverse proposition of bovine tuberculosis being communicated to human beings, however, the impossibility of experimenting upon the human subject made it difficult to establish this as an absolute certainty, although he was willing to express this as his opinion.

This declaration, coming from so eminent an authority on tuberculosis as Dr. Koch, has made a great impression upon the medical and scientific world. There are, of course, notable scientific men who take a positive view in the opposite and who offer substantial grounds for their convictions. While this difference of view continues among the medical and scientific authorities, the dairymen are no longer menaced by this formerly great financial loss that threatened them, and there is a consequent feeling of relief.

But sight should not be lost of the fact that if the human subject is not in danger from bovine tuberculosis, as Dr. Koch declares, every reasonable precaution should be taken to prevent its spread among cattle. Few cattle-owners appreciate to what an extent their interests are affected by this disease, or what it may come to if left unabated. After a thorough inquiry into the views of experts, this Bureau feels like recommending that such steps should be taken by State authority along conservative, but effective, lines that will result in gradually weeding this contagious disease from among the cattle of the State and also to keep affected cattle out of it.

LABORATORY WORK.

As already stated in this report, the disposition of the citizens to comply with the dairy laws in operation up to the present time has not required all of the Chemist's time in laboratory work, analyzing suspicious samples, consequently he has also been given charge of the office work, thereby enabling the Agent and Secretary to devote his entire time to a thorough inspection of the markets for violations of the dairy laws. However, all samples of dairy products that were sent to the Bureau were promptly analyzed or tested. A great amount of the Chemist's time has been occupied in making determinations of butter-fat in milk and cream by the Babcock test to accommodate farmers and purchasers of milk and cream who base their dealings on the basis of the butter-fat present, which often leads to disputes and which the Chemist is often called upon to arbitrate. Over nine hundred samples have been tested in this way during the two years covered by this report. A number of samples have also been submitted for the determination of the presence of antiseptic preservatives. As long as the time of the Chemist will permit, the Bureau is only too willing to perform this work for the citizens of the State, but it can not authorize its Chemist to test samples regularly for buyers and sellers of milk and cream simply to save such parties the expense and trouble of making their own tests.

DAIRY EDUCATION.

A subject of vital importance to those identified with the dairy interests of California continues to be that of procuring the proper means for instructing the dairymen and creamerymen of the State in the employment of better methods in conducting their business on a more profitable basis and for carrying out experimental work to solve problems that confront the dairymen. After years of unsuccessful efforts to have a dairy school established in this State in connection with the State University, as has been done in other States where dairying is a prominent industry, it was the pleasure of the Bureau to note in its last report that at last such steps had been taken, which resulted in arrangements for a school for instruction in practical butter and cheese making. But from announcements that have been made by those in authority of this department of the University, as well as a thorough knowledge of the situation, it is evident that the facilities are utterly inadequate to accommodate and properly instruct the large number of young men who apply for admission in the department.

What is most regrettable, however, is the fact that the facilities are such as not to afford the institution opportunities to conduct any work in original investigation along dairy lines, except in the most limited manner. The utter impossibility of securing sufficient farming land at

its present location for such purposes, which land is an absolute necessity to the further expansion of the usefulness of the department, makes it completely impossible to hope for a thoroughly equipped and creditable institution upon its present crippled basis. This condition of affairs makes what the Bureau has formerly referred to, an imperative issue with the dairy interests of the State, namely, that this department of the University, and such others of the College of Agriculture that need enlarged facilities, be removed from their present location to one not hampered by conditions that make success an impossibility. And now that the head of the University has favored this movement, the dairy interests are eager that the recommendation be carried out without delay. The coming session of the Legislature will be asked by the dairy interests of the State and expected to provide the means of carrying out this paramount wish of the dairy industry of the State.

DAIRY STATISTICS.

A law of the Legislature requires the State Dairy Bureau to compile annually statistics relating to the dairy industry of the State. This is an exceedingly difficult undertaking in order to arrive at results that are in the least accurate and reliable. To compile these figures annually requires the most of the work in the office of the Bureau. The assessment books of the different counties in the State show the names of 4,320 farmers and dairymen who own or control herds consisting of ten or more cows, and who are engaged in the production of butter, cheese, or milk. To get the amount produced by each of these and check them up to be certain that all have reported makes this a more laborious effort than is likely to be supposed, and it is sincerely to be hoped that the result justifies the work involved. Fortunately, in the case of butter the bulk of the production is now being made in creameries, which freely report their output, making it possible to obtain accuracy without resorting to estimating.

In general, it can be said that the two years covered by this report have been favorable for the dairymen, and that while there has been a steady increase in production for each year over the preceding year during the past six years, our markets have not in the least suffered from any overproduction so as to bring prices to an unprofitable figure. With the exception of a comparatively small quantity of undergrades, there has been very little butter brought into the State, and this amount has been more than compensated for by the quantity sent out. In case of cheese the situation is different, and we shall speak of it elsewhere.

BUTTER.

The tendency of the dairy industry of the State continues to confine itself largely to butter production, and California is gradually crowding to the front among States as a butter-producer. By the United States

census of 1900 she was given fourteenth place in the rank of States for butter production, and there is no doubt but that at the present time she has gained enough to move still farther up the line. The table below shows the butter production in pounds for each county in the State for each of the years ending October 1, 1901 and 1902:

Production of Butter for the Two Years ending October 1, 1901 and 1902.

COUNTIES.	FOR YEAR ENDING OCT. 1, 1901.			FOR YEAR ENDING OCT. 1, 1902.		
	Creamery Method.	Dairy Method.	Totals.	Creamery Method.	Dairy Method.	Totals.
Alameda	165,954	174,734	340,688	167,625	163,615	331,240
Alpine		16,972	16,972		17,420	17,420
Amador	82,500	177,230	259,730	99,040	175,630	274,670
Butte	6,000	122,096	128,096	9,110	154,280	163,390
Calaveras	13,180	153,800	166,980	14,116	175,236	189,352
Colusa		77,100	77,100		99,262	99,262
Contra Costa	49,350	406,560	455,910	29,372	372,150	401,522
Del Norte	312,661	188,410	501,071	376,231	126,830	503,061
El Dorado	59,588	176,800	236,388	16,500	176,650	193,150
Fresno	890,622	74,420	965,042	962,294	63,080	1,025,374
Glenn		83,290	83,290		85,680	85,680
Humboldt	3,804,421	95,000	3,899,421	4,010,444	50,811	4,061,255
Inyo		40,500	40,500		51,940	51,940
Kern	120,736	1,352	122,088	148,198	8,680	156,878
Kings	624,000	13,000	637,000	719,442	7,840	727,282
Lake	71,862	82,460	154,322	67,497	89,460	156,957
Lassen	216,300	70,180	286,480	206,420	76,860	283,280
Los Angeles	1,262,597	11,342	1,273,939	1,410,556	26,002	1,436,558
Madera		15,120	15,120		12,300	23,500
Marin	1,557,915	2,203,925	3,761,841	1,723,891	2,159,850	3,883,741
Mariposa		7,980	7,980		12,480	12,480
Mendocino	334,480	161,350	495,830	532,562	160,950	693,512
Merced	371,633	160,000	531,633	669,822	42,380	712,202
Modoc	65,000	15,530	80,530	35,100	74,240	109,340
Mono		22,760	22,760		32,625	32,625
Monterey	362,246	226,484	588,730	486,680	287,736	774,416
Napa	209,220	231,140	440,360	192,929	246,680	439,609
Nevada	108,000	1,450	109,450	46,249	1,560	47,809
Orange	557,753	1,837	559,590	594,681	1,923	596,604
Placer		42,770	42,770		73,320	73,320
Plumas	14,000	361,621	375,621	16,810	304,460	321,270
Riverside	323,468	3,728	327,196	425,194	20,815	447,009
Sacramento	698,853	75,844	774,697	1,061,775	124,360	1,186,135
San Benito	118,747	13,840	132,587	130,757	34,020	164,777
San Bernardino	182,018	2,710	184,728	156,577	1,608	158,185
San Diego	359,159	393,822	752,981	327,870	354,340	682,210
San Francisco	35,000		35,000			
San Joaquin	691,807	4,700	696,507	904,414	3,280	907,694
San Luis Obispo	289,816	984,280	1,274,096	345,413	939,118	1,284,531
San Mateo	179,496	216,320	395,816	128,167	239,260	367,427
Santa Barbara	371,530	386,160	757,690	353,726	383,370	737,096
Santa Clara	121,520	166,400	287,920	130,055	84,640	214,695
Santa Cruz	331,266	112,840	444,106	357,520	96,450	453,970
Shasta		27,840	27,840		21,560	21,560
Sierra	164,000	41,000	205,000	167,340	60,290	227,630
Siskiyou	312,808	65,378	378,186	415,770	3,900	419,670
Solano	101,500	447,960	549,460	131,140	421,970	553,110
Sonoma	1,507,898	1,507,429	3,015,327	1,617,612	1,013,946	2,631,558
Stanislaus	632,753	3,650	636,403	674,433	2,625	677,058
Sutter	126,445	295,760	422,205	128,112	295,960	424,072
Tehama	43,750	71,520	115,270	67,686	122,466	190,152
Trinity		6,860	6,860		13,235	13,235
Tulare	441,900	1,580	443,480	676,940	6,620	683,560
Tuolumne		244,080	244,080		248,030	248,030
Ventura	18,240	81,120	99,360	17,750	78,570	96,320
Yolo	602,975	64,960	667,935	718,520	24,748	743,268
Yuba	22,040	61,490	83,530	25,615	63,410	89,025
Totals	19,017,512	10,738,210	29,755,722	21,593,021	9,935,741	31,528,762

A feature worthy of note in the foregoing table is the continued remarkable growth in the production of butter in those counties where the soil and means of irrigation adapt them to the growing of alfalfa. In fact, the increase in production is largely confined to those districts, the older dairy sections along the immediate coast, where the natural pastures are relied upon to support the cows, having made little advance in recent years. Among the counties that have made remarkable growths are Fresno, Kern, Kings, Lassen, Los Angeles, Merced, Riverside, Sacramento, San Joaquin, Siskiyou, Stanislaus, Sutter, Tulare, and Yolo. With the exception of Siskiyou, these counties are all located in the irrigated sections of the State. Only a few years ago the dairy cow was conspicuously absent in these parts of the State, but the installation of irrigation systems and the introduction of alfalfa cultivation in these few years have clearly demonstrated the profitableness of dairy farming in these sections, and the still larger growth is only impeded by the fact that the necessary dairy cows are not procurable at a rate commensurate with the desire of those farmers who wish to engage in the business or increase that which they already have. As a result of this demand for dairy cows, prices for them have advanced to a remarkable degree within the last few years, which prevents many farmers from engaging in the business, as already stated.

The older dairy sections of the State have also increased their output of butter somewhat, which is due to favorable seasons rather than to any expansion of the business. In fact, many of the dairy cows of these sections, at least the surplus, are finding their way to the dairies of the newer irrigated alfalfa dairy sections, and even many of the dairymen themselves are moving from the old to the new sections.

A comparison of the amount of butter produced during the two years covered by this report with that of former years for which it has been compiled is presented in the following table, in pounds:

Year.	Creamery Butter.	Dairy Butter.	Total.
1897.....	10,866,646	17,811,793	28,678,439
1898.....	10,410,497	13,280,549	23,691,028
1899.....	12,725,814	12,143,270	24,868,084
1900.....	16,486,695	12,296,164	28,783,859
1901.....	19,017,512	10,683,690	29,701,202
1902.....	21,593,021	9,935,741	31,528,762

A conspicuous feature of these figures is the rapid increase in the production of creamery butter, and an almost corresponding decline in that produced by the dairy method; that produced by the former method having doubled within the six years included in the table. In this segregation reference is had to the butter made by the use of mechanical centrifugal separators for removing the cream from milk instead of the old method of creaming by gravity.

BUTTER IN SAN FRANCISCO.

San Francisco being the principal market for the butter produced in the State up to the present time, the receipts during the different months of the year have constituted a feature of the last report of the Bureau which has been greatly appreciated, since they form a gauge of the dairy production of the State. They are therefore given in the table below for each month of the two years covered by this report:

Month.	1901.	1902.
October	918,545	964,895
November	892,416	884,665
December	947,220	927,770
January	936,780	935,615
February	1,038,910	952,400
March	1,400,480	1,177,815
April	2,058,840	1,948,895
May	1,999,510	2,265,560
June	1,684,640	1,908,820
July	1,593,110	1,679,047
August	922,320	931,945
September	840,180	945,621
Totals	15,222,951	14,823,048

An apparent shortage in the receipts for the last year is due to a delayed season, resulting in a lighter production during the early spring months. This shortage is almost entirely made up by the increased production later in the season, and had another month been included in the table the receipts of the former year would have been exceeded. Another reason for the shortage is the fact that not as great a proportion of the butter in the State goes to San Francisco as in former years, when the great bulk was shipped to the city and reshipped to points throughout the State. At the present time the trade of such points is supplied direct by the creameries.

A noteworthy feature of these figures is the fact that production continues so freely throughout the year as a result of our semi-tropical winters. As will be noted, during the months in the height of the season only about twice as much butter is received as during the months of lowest production, in midwinter. In no other section of the United States does this condition prevail, and probably nowhere in the world north of the equator. Another feature is also notable, and that is the heavy production during the early spring months of March, April, May, and June, which months constitute our season of surplus production. This is an extremely fortunate situation for California, and which, we believe, will form the basis of a great butter-producing industry in the State in the future. During these months, the Eastern markets are almost devoid of fresh butter, or at least that made from green pastures, and prices are at their best. At this season California should find in the Eastern markets a field for an unlimited amount of butter. With this natural advantage that the dairymen of California have over those of the East, not only by reason of climatic conditions, but also by the extreme cheapness with which butter may be produced, the great future for this industry becomes apparent to any one.

CHEESE.

As already stated in this report, the cheese production of the State is not very extensive up to the present time, a large amount of that consumed being shipped into the State. So far the dairy industry has had a tendency to confine itself to butter production. The cheese production is shown in the following table:

Cheese Production for the Years ending October 1, 1901 and 1902.

County.	1901.	1902.
Contra Costa	48,230	38,760
Fresno	103,700	140,118
Humboldt	27,117	22,480
Inyo	-----	23,860
Kern	18,250	22,627
Kings	229,260	180,000
Lake	73,033	84,204
Los Angeles	780,358	822,816
Marin	332,538	441,595
Mendocino	54,750	52,800
Merced	24,470	-----
Monterey	547,650	770,774
Napa	23,480	24,921
Plumas	12,000	10,000
Riverside	151,800	98,415
Sacramento	648,929	620,095
San Benito	227,690	275,587
San Joaquin	38,400	94,180
San Luis Obispo	124,963	173,320
San Mateo	667,368	689,165
Santa Barbara	26,000	22,400
Santa Clara	568,910	726,459
Santa Cruz	404,101	406,127
Sierra	1,400	3,050
Siskiyou	65,378	61,000
Sonoma	153,025	161,842
Stanislaus	196,052	208,765
Sutter	182,150	256,780
Tehama	24,354	26,693
Tulare	-----	11,000
Ventura	-----	33,600
Totals	5,681,366	6,503,441

Cheese Receipts in San Francisco.

Month.	1900-1901.	1901-1902.
October	283,275	282,455
November	208,530	181,360
December	190,585	194,685
January	209,565	205,475
February	230,870	221,110
March	339,785	346,390
April	478,410	469,475
May	494,115	541,125
June	389,120	405,370
July	391,665	362,780
August	312,035	328,410
September	315,135	343,392
Totals	3,743,090	3,882,027

During the year ending October 1, 1902, there was shipped into San Francisco alone 1,700,000 pounds of cheese, including both Eastern and foreign, or about one fourth as much as is made in the State. When this fact is taken into consideration it is apparent that there is room for a material expansion of the dairy business of the State.

BUTTER AND CHEESE PRICES.

The two years covered by this report have been favored with excellent prices for both butter and cheese, notwithstanding the material increase in production. Especially is this true in the case of the past year. This has been an incentive that is leading many farmers of the State from less profitable branches of farming into dairying. The figures given in the table below do not accurately represent the average prices for each month of the past two years by reason of the fact that the system of marketing our dairy produce is not such as to give uniform prices at any particular time, as is the case in other large market centers. The figures given represent, as near as can be ascertained, the average of the daily quotations for each month in the San Francisco market, and are as follows:

Average Butter and Cheese Prices, in Cents per Pound, for the Years 1900-1901 and 1901-1902.

Month.	1900-1901.			1901-1902.		
	Cheese.	Butter.		Cheese.	Butter.	
		Creamery.	Dairy.		Creamery.	Dairy.
October	11.2	28.4	25.7	11.1	29.0	26.2
November	12.1	29.0	26.2	12.0	28.1	25.4
December	12.1	26.2	23.5	12.0	25.6	22.8
January	12.0	23.5	20.7	11.5	26.5	23.8
February	10.0	21.9	19.2	11.5	29.0	26.3
March	9.1	18.8	16.1	10.0	26.4	23.7
April	9.3	17.6	14.9	9.0	20.5	17.8
May	8.4	18.4	15.6	8.9	20.6	17.5
June	8.0	18.6	15.5	9.5	22.8	20.1
July	8.6	20.5	17.8	10.6	23.8	21.1
August	10.0	24.7	21.9	11.9	28.1	25.3
September	10.9	26.2	23.4	12.0	30.5	27.7
Average	10.1	22.8	20.0	10.8	25.8	23.1

CONDENSED MILK.

Although large quantities of condensed milk and canned cream are used in the State, it is a regrettable fact that it is nearly all brought from other States. Since our last report another factory for the making of these products has been established in the State, and from the interest the industry is recently receiving there is no doubt but that a few more years will see a material increase in the production of these articles. During the year ending October 1, 1901, the three factories

in the State turned out 100,140 cases, and during the following year, with the addition of one more factory in the State, 146,860 cases were produced.

ANNUAL VALUE OF THE DAIRY OUTPUT.

Having presented, as correctly as is obtainable, the annual production of the different dairy products, it is possible to show approximately the cash value that this industry means annually to the State. This is shown in the tables below:

1900-1901.

Value of 29,730,889 pounds of butter	\$6,838,103
Value of 5,679,566 pounds of cheese	567,566
Value of 100,140 cases of condensed milk and cream	380,532
Value of milk and cream consumed	6,236,557
Value of calves from dairy cows	1,422,603
Value of hogs produced on dairies and creameries	1,641,459
	<hr/>
	\$17,086,820

1901-1902.

Value of 31,424,135 pounds of butter	\$7,541,792
Value of 6,503,441 pounds of cheese	702,371
Value of 146,680 cases of condensed milk and cream	564,758
Value of milk and cream consumed	6,236,555
Value of calves from dairy cows	1,568,040
Value of hogs produced on dairies and creameries	1,710,040
	<hr/>
	\$18,323,556

The valuations given above, while more or less of an approximation, are safely conservative. The prices upon which they are estimated are below rather than above the actual market values. Furthermore, no credit is given to the annual increase in the number of dairy cows, an item which alone would materially increase the annual valuations given.

DAIRY EXPORTS.

The amount of dairy products exported by California to foreign countries has not increased to a very material extent, and, in fact, does not amount to figures of very much moment, especially during the past two years, owing to the fact that the Hawaiian Islands being now American territory, shipments there are no longer considered exports. This is principally due to the fact that those countries which could be supplied by California are largely inhabited by races which do not consume dairy products. This is especially true of that part of Asia with which we have trade relations. The only field for much of a trade in these products is among the Americans and Europeans in these parts of the globe, and it is they who consume the small amounts imported from Europe, Australia, and America. The close proximity of Australia, which is a large exporter of dairy products, has given that country a strong hold on the Oriental markets, in which it is backed and encouraged by a scrupulous supervision by the government. It is worth

reporting here that our own Federal Government has undertaken similar steps, with a view of encouraging our export trade in dairy products, by providing a system of inspecting and certifying as to the quality of products that leave the port of San Francisco, in order that a reputation for our products may be secured and maintained abroad.

From the records of the Custom House at San Francisco the tables below have been compiled, showing the valuation of butter and cheese exported for each year since 1894:

Butter.

	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
British Columbia	\$47,726	\$7,195	\$10,341	\$14,246	\$36,695	\$27,539	\$48,735	\$37,497
Hawaii	18,152	19,127	19,579	30,256	32,295	35,009		
Japan	10,120	12,907	13,821	19,964	23,985	17,538	13,862	22,835
China	1,182	2,149	3,310	6,116	3,759	5,166	6,883	6,911
Philippine Islands							405	
Hongkong	364	3,199	516	1,136	5,885	3,742	1,883	1,886
French Oceanica	2,881	3,997	3,034	3,086	2,558	1,717	1,060	1,723
Mexico	6,310	3,018	3,987	6,067	8,416	7,479	7,950	11,186
Guatemala	2,051	2,292	2,990	3,518	1,640	613	195	570
Salvador	773	531			158	43	20	227
Costa Rica	348	2,903	241	1,037	54		10	104
Nicaragua	68	12			44	15	32	54
Honduras	38	207						123
Other countries	82	13,554	1,904	2,777	1,233	553	1,558	8,571
Totals	\$90,095	\$71,181	\$59,723	\$88,205	\$116,722	\$99,419	\$80,593	\$91,687

Cheese.

	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
British Columbia	\$3,647	\$709	\$1,095	\$1,532	\$2,714	\$4,746	\$5,640	\$5,164
Hawaii	9,016	7,150	12,031	12,626	17,006	20,883		
Japan	1,606	1,808	4,953	3,205	5,408	6,273	6,456	6,377
China	3,467	3,317	3,822	5,094	9,890	6,959	19,664	16,760
Philippine Islands							2,445	534
Hongkong	1,354	1,869	6,140	9,980	10,252	14,443	14,881	19,313
French Oceanica	1,839	1,866	626	560	904	1,030	845	1,875
Mexico	3,603	2,484	3,085	3,222	6,020	7,346	9,584	8,208
Guatemala	2,304	2,395	2,154	1,792	1,388	803	1,518	1,688
Salvador	1,140	759			116	83	154	265
Costa Rica	265	405	504	517	226	45	28	12
Nicaragua	133	269			140	320	412	224
Honduras		398			20	60		
Other countries	68	4,465	860	924	317	2,974	1,882	316
Totals	\$28,442	\$27,894	\$35,270	\$39,452	\$54,401	\$65,965	\$63,509	\$60,736

CREAMERIES.

The number of creamery plants in the State has not made a very material increase during the past two years, owing to the fact that the dairy districts are well supplied, and to the further fact that through the general introduction of farm separators creameries already in existence are enabled to handle the product of the cows from a larger territory, thereby increasing the output. In this manner a number of

large creameries in the State work up the cream produced by the cows in several counties, while formerly only the milk that was delivered daily by the dairymen was made into butter.

With the new order in our creamery system there are some material benefits to the industry. It is often the case that a community is burdened with too many creameries, which the farmers must support, making it either necessary to cut into the proceeds of the farmer who delivers the product of his cows to the plant, or else compel the creamery to cut down the operating expenses to a point where it is impossible to employ such capable services and methods as will result in the highest quality of goods turned out. By turning out large quantities of butter of a superior quality, these large concerns are able to secure better prices, and in return pay the dairymen more for the product of their cows than the numerous plants with small outputs, and also prevent undue imposition on the part of the middleman.

An objection that is urged against this tendency to centralization, as might be expected, is the fact that it tends to prevent free competition. While this may be true, it is a notable feature in the creamery business that success depends upon the confidence existing between the patrons and the creamery, and creamery owners are not likely to jeopardize their interests by undue arbitrariness toward their patrons.

Under the present tendency it is probable that the number of creamery plants in the State will not multiply as they have in the past, but it should not be construed to mean that the creamery interests are not forging ahead.

CONCLUSION.

In concluding this report we trust we have succeeded in conveying an idea of the importance and magnitude of the dairy interests of the State, and especially what it has done during the past two years for those who are identified with them. The Dairy Bureau has made every possible effort to secure a thorough enforcement of the dairy laws, and we can confidently say that they have been lived up to by the citizens of the State.

It may be in place here, however, to express the general wish of the dairy interests that the usefulness and scope of the work of the Bureau be extended. As already stated, the great demand at this time by the creamery and cheese-factory owners and by the better class of dairymen, as well as by the consuming public, is for a higher standard of sanitary conditions among the producers of milk. This is absolutely necessary if the State hopes to raise the quality of its butter and cheese to a level that will meet the requirements of the larger markets outside of the State. To this end some form of State supervision or inspection is imperative, the providing of which is respectfully recommended to the Legislature.

FINANCIAL STATEMENT.

FIFTY-SECOND FISCAL YEAR—JULY 1, 1900, TO JUNE 30, 1901.

Amount appropriated for the fifty-second fiscal year	\$5,000 00
Expenses.	
Salary of Agent and Secretary	\$1,200 00
Salary of Chemist and Assistant Secretary	960 00
Traveling expenses of Agent and Secretary	31 55
Office rent	360 00
Postage stamps	160 00
Cheese-branding stencils	6 00
Laboratory supplies	18 70
Traveling expenses of members of the Bureau	105 05
H. Y. Stanley, per diem for services and expenses as Assistant Agent at Los Angeles	346 00
Janitor's services	30 00
Stationery and office supplies	45 71
Gas and water bills	24 70
Towel service	6 00
Expressage, telegrams, notary fees, and incidentals	15 18
Balance of appropriation unexpended	1,691 11
	<u>\$5,000 00</u>

FIFTY-THIRD FISCAL YEAR—JULY 1, 1901, TO JUNE 30, 1902.

Amount appropriated for the fifty-third fiscal year	\$5,000 00
Expenses.	
Salary of Agent and Secretary	\$1,200 00
Salary of Chemist and Assistant Secretary	1,080 00
Traveling expenses of Agent and Secretary	480 90
Office rent	360 00
Postage stamps	176 00
Cheese-branding stencils	8 40
Laboratory supplies	20 89
Traveling expenses of members of the Bureau	71 40
H. Y. Stanley, per diem for services and expenses as Assistant Agent at Los Angeles	419 30
Janitor's services	40 00
Stationery and office supplies	31 19
Gas and water bills	40 30
Towel service	6 00
Telephone service	12 40
Press clipping service	24 00
Expressage, telegrams, notary fees, and incidentals	12 10
Balance of appropriation unexpended	1,017 12
	<u>\$5,000 00</u>

REPORT OF THE CHEMIST.

To the State Dairy Bureau:

GENTLEMEN: I have the honor to submit the following report of the work performed in the laboratory during the past two years. In addition to the work in the laboratory, which does not occupy my entire time, I have performed the work in the office. During the two years I have examined all samples submitted, amounting as follows:

Butter and oleomargarine	38
Cheese	64
Miscellaneous tests	9
Moisture determinations in butter	12
Milk and cream by Babcock test	968
Babcock test-bottles examined for accuracy	1,743
Total	2,834

In case of goods suspected of being oleomargarine or of containing foreign fats, the samples were subjected to the Reichert-Wollny test, to ascertain the amount of volatile acids, which distinguishes fat from milk from other fats. The following samples were examined by this method:

Sample
No.

1. Submitted by H. Y. Stanley, Los Angeles Reichert number, 24.2. Pure butter.
2. Submitted by H. Y. Stanley, Los Angeles Reichert number, 23.1. Pure butter.
3. From Minford's Grocery, Alameda Reichert number, 24.3. Pure butter.
4. Submitted by H. Y. Stanley, Los Angeles Reichert number, 23.8. Pure butter.
5. Cheese from Anchor Cheese Factory, Los Angeles County. Submitted by Los Angeles Health Officer Reichert number, 22.6. [present. No foreign fats
6. Cheese from Los Banos Creamery Reichert number, 26.8. No foreign fats
7. Submitted by J. M. Thomas, Agent and Secretary Reichert number, 23.8. [present. Pure butter.
8. Submitted by J. M. Thomas, Agent and Secretary Reichert number, 26.4. Pure butter.
9. From McCoy & Sons, San Francisco Reichert number, 24.2. Pure butter.
10. Submitted by J. M. Thomas, Agent and Secretary Reichert number, 25.6. Pure butter.
11. Submitted by J. M. Thomas, Agent and Secretary Reichert number, .8. Oleomargarine.
12. From Faber & Co., San Francisco Reichert number, 26.1. Pure butter.
13. Submitted by Los Angeles Board of Health Reichert number, 27.1. Pure butter.
14. From E. & J. Getz, San Francisco Reichert number, 26.9. Pure butter, but
15. Submitted by J. M. Thomas, Agent and Secretary Reichert number, 27.0. [very rancid. Pure butter.
16. Submitted by W. B. Hage, San Diego Reichert number, 25.9. Pure butter.
17. Submitted by Thos. Prather, Oakland Reichert number, 26.8. Pure butter.

CHEESE.

The following samples of cheese have been analyzed to determine whether they were up to the standard provided by the cheese-grading law enacted in 1897:

Percentage Composition of Cheese.

Sample No.	Name and Location of Manufacturer.	Water.	Fat.	Casein.	Ash.
1	M. Isidoro, Pescadero	32.80	35.56	28.96	2.64
2	M. J. Silva, Watsonville	36.91	33.92	26.36	2.81
3	Hickmott Co., Bouldin Island	37.91	30.43	28.21	3.45
4	Foletta Bros., Swanton	38.60	31.89	26.26	3.25
5	A. Inderbitzen, Cosumnes	38.87	31.96	25.58	3.59
6	A. L. Ellis, Gilroy	34.22	36.14	25.94	3.68
7	J. B. Crow, Crow's Landing	33.14	35.13	28.71	3.02
8	Wm. E. Bunker, Newman	37.92	31.32	27.00	3.76
9	Enos Fontes, Lobetus	33.37	35.53	27.85	3.25
10	D. McCloskey, Hollister	36.03	30.30	29.87	3.80
11	Los Banos Creamery, Los Banos	34.68	34.47	27.12	3.73
12	Laguna Cheese Factory, Los Alamos	35.83	31.66	29.05	3.46
13	M. Ryan, Hollister	34.68	34.21	27.79	3.32
14	M. Tomasini, Gonzales	33.19	36.39	27.07	3.35
15	Eagle Cheese Factory, San Juan	34.67	36.10	25.75	3.48
16	Spreckels Sugar Co., Gilroy	34.34	34.40	27.22	4.04
17	Dooling & O'Regan, Hollister	33.42	33.98	29.18	3.42
18	G. A. Pedrazzi, Hollister	39.19	33.59	24.04	3.18
19	Anselmi & Corda, Gonzales	39.18	29.93	27.83	3.06
20	C. Bedasci, Watsonville	34.60	33.39	29.05	2.96
21	C. P. Warburton, Hollister	33.58	40.58	23.97	2.87
22	E. D. Moore, Pescadero	40.15	30.53	25.87	3.85
23	J. E. Reid, Kirkwood	39.09	33.11	24.41	3.39
24	Hugh Matthews, Emmett	35.83	31.43	29.30	3.37
25	P. McKenna, Tres Pinos	37.30	29.16	30.02	3.52
26	Arroyo Seco Cheese Factory, Soledad	36.74	37.84	22.26	3.15
27	L. E. Gobby, Fresno	31.88	35.17	29.49	3.46
28	Charles McCoy, Soledad	34.67	36.10	25.97	3.46
29	L. E. Davis, Hollister	34.04	34.89	27.47	3.59
30	M. Engle, Grafton	35.38	35.36	25.59	3.27
31	Gonzales Cheese Factory, Gonzales	38.28	31.01	23.47	3.24
32	J. R. Waters, Sur	34.55	37.87	23.82	3.76
33	J. B. Reibli, Sonoma	30.30	35.21	31.22	3.27
34	Ritter Bros., Sheldon	32.46	32.26	31.31	3.97
35	Respini & Moretti, Santa Cruz	33.46	35.77	26.82	3.95
36	M. F. McNamara, Nicolaus	36.74	33.50	26.46	3.90
37	Vanoni Bros., La Honda	38.79	31.69	25.42	4.10
38	August Surtman, San Gregorio	33.22	35.09	27.51	4.18
39	P. Doyle, Verona	38.79	30.90	26.68	3.63
40	J. N. Pereira, San Gregorio	35.21	35.51	26.04	3.24
41	Joseph Felder, Sonoma	33.94	32.97	29.15	3.94
42	E. Daneri, Halfmoon Bay	32.12	32.98	31.07	3.83
43	Oliver Orr, San Felipe	32.82	37.26	26.47	3.45
44	D. Bizzini, Newman	36.43	32.27	27.56	3.74
45	Frank Miller, San Pablo	34.12	31.96	30.90	3.22
46	J. Offutt, Petaluma	33.03	37.12	26.63	3.22
47	Joseph Guerder, Ryde	34.05	36.21	26.61	3.13
48	A. Rodini, Pescadero	38.79	30.90	26.68	3.63
49	Donnelly, Dunn & Co., Tres Pinos	35.21	35.51	26.04	3.24
50	A. Badasci & Co., Gonzales	33.94	32.97	29.15	3.94
51	B. Cavalli & Co., La Honda	32.12	32.98	31.07	3.83
52	L. Dotta, Pescadero	38.70	36.56	20.89	3.85
53	Grizzly Bluff Creamery, Grizzly Bluff	32.82	37.26	26.47	3.45
54	Joseph Saner, Galt	36.43	32.27	27.56	3.74
55	J. D. Enright, Santa Cruz	34.12	31.96	30.70	3.22
56	P. Scaroni, Santa Cruz	33.03	37.12	26.63	3.22
57	Doan Bros., Gilroy	34.05	36.21	26.61	3.13
58	R. E. Steele, Pescadero	39.86	31.00	25.43	3.71
59	Novato Land Co., Novato	38.79	30.90	26.68	3.63
60	Pescadero Creamery Co., Pescadero	34.68	34.21	27.79	3.32
61	George F. Mitchell, Hollister	35.81	30.71	29.58	3.90
62	Anchor Cheese Factory, Compton	35.85	31.43	29.30	3.37
63	John Burns, Vernon	39.09	33.11	24.41	3.39
64	R. Nichols, Sheldon	33.58	40.58	23.97	2.87

Out of this entire number of samples analyzed, it is interesting to report that there is not a single instance in which the amount of butter-fat falls below the legal standard for a full cream cheese, which is thirty per cent. Of "skim" and "half-skim" cheese there have been no samples received. In my former report quite a few analyses of samples showed less than the legal fat content, but which, as I then stated, was due to a corresponding excess of water and accompanied by a poor quality generally. The absence of any such instances in the analyses reported above indicate that our cheese-makers have benefited by the suggestion then made, that a material improvement could be made in the quality of the cheese produced in California by overcoming this fault.

The following samples were examined for the purposes specified:

Sample No. 5. Butter, submitted by H. Y. Stanley. Not "process" butter.

Sample No. 8. Cheese, submitted by Messrs. Norton, Teller & Roden, of San Francisco. Examined for presence of tyrotoxin. None detected.

Sample No. 14. Cheese, submitted by Messrs. Norton, Teller & Roden, of San Francisco. Examined for tyrotoxin, which was found present, and which was no doubt the cause of a number of persons who had consumed it suffering from symptoms of poisoning.

Sample No. 18. Cheese, submitted by Los Angeles health officer. Tested for boracic acid and formaldehyde, supposed to have been used in the milk from which the cheese was made. Neither of the compounds was detected.

Sample No. 19. Cheese, submitted by the Anchor Cheese Factory, Compton, Cal. Examined for boracic acid and formaldehyde. Neither detected.

Sample No. 20. Milk, submitted by the San Francisco "Chronicle." Examined for chemical preservatives. None found.

Sample No. 21. Sample of "Special M. Preservative," submitted by the San Francisco "Chronicle." Contained formaldehyde.

Sample No. 22. Milk, submitted by John Gwynn. Contained neither boracic acid nor formaldehyde.

Sample No. 24. Butter, submitted by W. B. Hage, of San Diego. Is not "process" butter.

MOISTURE DETERMINATIONS.

Twelve samples of butter were submitted for the purpose of having the amount of moisture determined. These determinations were made at the request of creamery managers and butter-makers, who failed to understand why, in their operations, the "over churn" (or amount of finished butter over the amount of fat contained in their milk) was not greater, or at least what it should be in order to give them that source of profit upon which the operator of a creamery largely relies.

The amount of the "over churn" depending mostly upon the amount of water the butter contains, it can readily be seen that butter-makers would be interested in knowing the amount their butter contains, which can only be determined by chemical methods. In all the determinations made, it was found that there was no abnormal deficiency in the water content for a good quality of butter. Neither was there such an excess as to indicate fraudulent intentions, with which creamerymen have at times been charged, of "loading" their butter with excessive amounts of water. My determinations would indicate that where butter-makers do not secure as favorable an "over churn" as they desire, the fault is not on account of a lack of water in the butter, but is due to inaccurate testing, which does not give them the correct amount of fat in the milk or cream.

BABCOCK TEST-BOTTLES.

In each of my former reports I have called attention to the fact that a great many of the bottles used with the Babcock test in the creameries of the State were not correctly standardized, and therefore accurate tests of milk and cream could not be made, which resulted in great injury to either buyer or seller. When these investigations were first made, six years ago, bottles correctly standardized were the exception, but I am pleased to report that this is no longer the case. Out of the 1,743 bottles tested during the past two years, less than one hundred have been condemned as inaccurate, and in these the inaccuracy was often so slight as to have little effect upon the results of tests made with them.

The last session of the Legislature enacted a law (published in the Appendix) making it a misdemeanor for any one who buys or sells milk, on the basis of the butter-fat as determined by the Babcock test, to use bottles that are not correctly standardized. Such a law is in force in several States, but it usually has one provision that would have made the California statute more effective; that is, that some institution be charged with power to inspect the bottles used and to enforce the law.

MILK AND CREAM TESTS.

The large number of samples of milk and cream submitted to be tested to ascertain the amount of butter-fat has demanded a great amount of my time, especially as they come mostly one at a time. These samples were submitted generally by those who were not satisfied with the results of their own testing or with that of parties with whom they were dealing, and also by persons who wished to be informed as to the quality of milk and cream they were buying or selling and were not provided with the necessary apparatus for making the tests.

Respectfully,

WM. H. SAYLOR,
Chemist.

CREAMERIES OF CALIFORNIA.

Name of Creamery.	Proprietor, Manager, or Secretary.	Postoffice.	County.
Oakland Cream Depot.....	H. P. Glasier, sec'ty.....	Oakland.....	Alameda.
Livermore Creamery.....	A. Young, manager.....	Livermore.....	Alameda.
Central Creamery.....	E. H. Fox, manager.....	Oakland.....	Alameda.
Jersey Creamery.....	T. Vonah.....	Alameda.....	Alameda.
California Creamery.....	J. H. Mauer, prop.....	Oakland.....	Alameda.
Encinal Creamery.....	J. Bell, proprietor.....	Alameda.....	Alameda.
Ione Creamery.....	Wm. Prouty.....	Ione.....	Amador.
Hyde Creamery.....	W. J. Hyde, prop.....	Ione.....	Amador.
Biggs Creamery.....	F. L. Tracey, mgr.....	Biggs.....	Butte.
Oroville Creamery.....	J. C. Weldon, sec'ty.....	Oroville.....	Butte.
Table Mountain Creamery.....	E. Adams, proprietor.....	Murphy.....	Calaveras.
Buckley Creamery.....	W. H. Buckley, prop.....	Alden.....	Contra Costa.
Danville Creamery.....	Wood & Co., props.....	Danville.....	Contra Costa.
Klamath Creamery.....	L. J. Lackwood, prop.....	Requa.....	Del Norte.
South End Creamery.....	Alexander & Griffin.....	Crescent City.....	Del Norte.
Crescent Creamery.....	Wm. Westbrook, sec.....	Crescent City.....	Del Norte.
Del Norte Creamery.....	E. C. Cadra, prop.....	Crescent City.....	Del Norte.
Fort Dick Creamery.....	Geo. E. Tryon, mgr.....	Crescent City.....	Del Norte.
Elk Valley Creamery.....	N. Giacomini, mgr.....	Crescent City.....	Del Norte.
Banner Creamery.....	D. Woodruff, sec'ty.....	Smith River.....	Del Norte.
Carson Creek Creamery.....	Wm. Woodard, prop.....	Clarksville.....	El Dorado.
El Dorado County Creamery.....	A. R. Barton, prop.....	Latrobe.....	El Dorado.
White Rock Creamery.....	Ewer Bros., props.....	Clarksville.....	El Dorado.
Clarksville Creamery.....	Joerger Bros., props.....	Clarksville.....	El Dorado.
Minnewawa Creamery.....	Geo. E. Peoples, prop.....	Fresno.....	Fresno.
Selma Creamery.....	W. A. Durham, mgr.....	Selma.....	Fresno.
San Joaquin Creamery.....	A. B. Evans, mgr.....	Fresno.....	Fresno.
Danish Creamery.....	J. R. Murphy, mgr.....	Fresno.....	Fresno.
Sanger Creamery.....	L. M. Howell, mgr.....	Sanger.....	Fresno.
Minor's Creamery.....	Isaac Minor, prop.....	Dows Prairie.....	Humboldt.
Bunker Hill Creamery.....	S. V. Morrison, mgr.....	Ferndale.....	Humboldt.
Hill's Grove Creamery.....	John Flores, prop.....	Capetown.....	Humboldt.
Elk River Creamery.....	Showers & Carlin.....	Eureka.....	Humboldt.
Occidental Creamery.....	McRay & Co., props.....	Ferndale.....	Humboldt.
Loleta Creamery.....	John Hanson, mgr.....	Loleta.....	Humboldt.
Crown Creamery.....	F. N. Rasmussen, pro.....	Ferndale.....	Humboldt.
Valley Creamery.....	N. Friel, proprietor.....	Ferndale.....	Humboldt.
Bonanza Creamery.....	J. E. Dowd, manager.....	Capetown.....	Humboldt.
Ocean View Creamery.....	W. P. Pratt, mgr.....	Eureka.....	Humboldt.
Alton Creamery.....	F. W. Luther, sec'ty.....	Alton.....	Humboldt.
Riverside Creamery.....	Mads Madsen, prop.....	Ferndale.....	Humboldt.
Hydesville Creamery.....	R. Beck, secretary.....	Hydesville.....	Humboldt.
Pacific Creamery.....	C. Rasmussen, mgr.....	Loleta.....	Humboldt.
Alpha Creamery.....	Geo. R. Price, mgr.....	Grizzly Bluff.....	Humboldt.
Scotia Creamery.....	Pacific Lumber Co.....	Scotia.....	Humboldt.

CREAMERIES OF CALIFORNIA—Continued.

Name of Creamery.	Proprietor, Manager, or Secretary.	Postoffice.	County.
Ferndale Creamery	F. Madsen, sec'ty	Ferndale	Humboldt.
Seaside Creamery	L. Wolf, proprietor	Loleta	Humboldt.
El River Creamery	Chas. DeCarli, sec'ty	Waddington	Humboldt.
Silver Star Creamery	F. W. Andreason, pro.	Ferndale	Humboldt.
Excelsior Creamery	Jas. Nisson, secretary	Ferndale	Humboldt.
Coldbrook Creameries	J. E. Holmes, mgr.	Loleta	Humboldt.
Arcata Creameries (2)	P. Philipsen, mgr.	Arcata	Humboldt.
Grizzly Bluff Creamery	G. C. Barber, sec'ty	Grizzly Bluff	Humboldt.
Hurlbut Creamery	N. Hurlbut, prop.	Ferndale	Humboldt.
Bay View Creamery	McKay & Co., props.	Eureka	Humboldt.
Bear River Creamery	R. G. Johnson, mgr.	Capetown	Humboldt.
Orick Creamery	Latin Bros., props.	Orick	Humboldt.
Eureka Creamery	Thos. Mortensen	Eureka	Humboldt.
Stockton Creamery	Stockton Bros., props.	Petrolia	Humboldt.
Mazepa Creamery	F. L. Shank, mgr.	Capetown	Humboldt.
Echo Creamery	F. Goughlielmini, pro.	Ferndale	Humboldt.
Independent Creamery	Samuels & Co., props.	Ferndale	Humboldt.
Cream Valley Creamery	Mrs. P. Kelly, prop.	Ferndale	Humboldt.
Laurel Dell Creamery	Petersen & Lorenzen	Arcata	Humboldt.
Bay Creamery	J. P. Abrahamson, mgr.	Ferndale	Humboldt.
Sunnyside Creamery	Geo. E. Hanson, prop.	Fortuna	Humboldt.
Cold Spring Creamery	H. A. Tyrell, mgr.	Ferndale	Humboldt.
Myrtle Grove Creamery	A. Berding, prop.	Capetown	Humboldt.
Far West Creamery	Levant Cook, prop.	Petrolia	Humboldt.
Trigg Creamery	John Trigg, prop.	Ferndale	Humboldt.
McKay Creamery	McKay & Co., props.	Eureka	Humboldt.
Constantine Creamery	M. Constantine, prop.	Fruitland	Humboldt.
Moranda Creamery	Jos. Moranda, prop.	Loleta	Humboldt.
Golden Gate Creamery	Wm. Belloni, prop.	Petrolia	Humboldt.
Sunset Creamery	Geo. Thomsen, sec'ty	Loleta	Humboldt.
Pioneer Creamery	Pioneer Creamery Co.	Ferndale	Humboldt.
Cream City Creamery	H. C. Samuels, mgr.	Ferndale	Humboldt.
Premium Creamery	P. C. Mazza, manager	Arcata	Humboldt.
White Clover Creamery	W. A. Slissman, prop.	Ferndale	Humboldt.
Mountain View Creamery	G. W. Stockton, prop.	Capetown	Humboldt.
Fresh Water Creamery	Hansen Bros., props.	Eureka	Humboldt.
Fairview Creamery	W. D. Roberts, prop.	Round Valley	Inyo.
Waucoba Creamery	C. B. Rawson, prop.	Bishop	Inyo.
Gilt Edge Creamery	A. Matlick, prop.	Bishop	Inyo.
Inyo Creamery	G. M. Pitman, mgr.	Bishop	Inyo.
American-Swiss Creamery	Ruedy Bros., props.	Bakersfield	Kern.
Kern County Creamery	G. W. Lucy, mgr.	Bakersfield	Kern.
Rosedale Creamery	W. C. Smith, mgr.	Rosedale	Kern.
Sumner Ranch Creamery	Andrew Brown, prop.	Kernville	Kern.
Bakersfield Creamery	R. B. Swain, sec'ty	Bakersfield	Kern.
Matley Creamery	C. Matley, prop.	Bakersfield	Kern.
Kings County Creamery	F. R. Peacock, prop.	Hanford	Kings.
Clear Lake Creamery	A. E. McNeill, mgr.	Lakeport	Lake.
Rocca Creamery	Jas. Salmini, mgr.	Middletown	Lake.
Diamond Mountain Cream'y	Spoon Bros. & Christie	Susanville	Lassen.
Honey Lake Creamery	Spoon Bros. & Christie	Standish	Lassen.
Bieber Creamery	Bieber Creamery Co.	Bieber	Lassen.
Smith's Creamery	Geo. A. Smith, prop.	Los Angeles	Los Angeles.
Oak Hill Creamery	C. Raab, manager	Pasadena	Los Angeles.
Norwalk Co-op. Creamery	Jacob Swigart, sec'ty	Norwalk	Los Angeles.

CREAMERIES OF CALIFORNIA—Continued.

Name of Creamery.	Proprietor, Manager, or Secretary.	Postoffice.	County.
Grove Creamery	D. Raab & Sons, props.	El Monte	Los Angeles.
Eureka Co-op. Creamery	W. A. Blim, manager.	Compton	Los Angeles.
Bingham Creamery	H. A. Bingham, prop.	Los Angeles	Los Angeles.
Crown Creamery	J. O. Blakeley, sec'ty.	Hynes	Los Angeles.
Gardena Creamery	R. W. Davis, mgr.	Gardena	Los Angeles.
Star Creamery	W. H. Smith, prop.	Norwalk	Los Angeles.
Downey Co-op. Creamery	J. R. Rudd, secretary.	Downey	Los Angeles.
Dickson Creamery	R. E. Dickson, prop.	Point Reyes	Marin.
Geary Creamery	P. Geary, prop.	Point Reyes	Marin.
Star Creamery	M. J. Regalla, prop.	Point Reyes	Marin.
Rocky Cañon Creamery	Paolo Dado, prop.	Tamales	Marin.
Bay View Creamery	D. McClure, manager.	Marshall	Marin.
Mailliard Creamery	Jos. Mailliard, mgr.	San Geronimo	Marin.
Skinner Creamery	W. D. Skinner, prop.	Olema	Marin.
Hicks Valley Creamery	Brown & Brandon	Petaluma	Marin.
Home Creamery	DeFraga Bros., props.	Point Reyes	Marin.
Arden Creamery	M. Butler, prop.	San Anselmo	Marin.
Jersey Creamery	B. G. Morse, prop.	Bolinas	Marin.
Peterson Creamery	A. Peterson, prop.	Point Reyes	Marin.
Mazza Creamery	L. Mazza, proprietor.	Tocoloma	Marin.
Reeves Creamery	J. R. Reeves, prop.	Point Reyes	Marin.
Ocean View Creamery	Jas. McDowell, prop.	Marshall	Marin.
Glen Creamery	John D. Avilla, prop.	Point Reyes	Marin.
Maria Creamery	Jos. Maria, prop.	Point Reyes	Marin.
Claussen Creamery	Henry Claussen, prop.	Point Reyes	Marin.
Cordoni Creamery	G. A. Cordoni, prop.	Tocoloma	Marin.
Bloom Creamery	Jos. Bloom, prop.	Olema	Marin.
Martella Creamery	Jos. Martella, prop.	Point Reyes Sta.	Marin.
Butler Creamery	M. Butler, prop.	Point Reyes	Marin.
Redding Creamery	Thos. Redding, prop.	Nicasio	Marin.
Point Reyes Creamery	P. W. Reinhold, prop.	Point Reyes	Marin.
McDonald Creamery	John McDonald, prop.	Marshall	Marin.
Fillipini Creamery	M. Fillipini, prop.	Petaluma	Marin.
Roy's Creamery	T. B. Roy, prop.	San Geronimo	Marin.
Wilkins Creamery	W. W. Wilkins, prop.	Bolinas	Marin.
Reinhold Creamery	A. Reinhold, prop.	Point Reyes	Marin.
Martin Creamery	Chas. Martin, prop.	Petaluma	Marin.
Ottolini Creamery	Ottolini Bros., props.	Point Reyes Sta.	Marin.
Tamales Point Creamery	C. Moltzen, prop.	Tamales	Marin.
Sausalito Creamery	L. Gioli, mgr.	Sausalito	Marin.
Marin County Creamery	R. C. Dickson, prop.	Olema	Marin.
Hussey Creamery	Hussey Bros., props.	Point Reyes	Marin.
Peerless Creamery	C. M. Skinner, mgr.	Petaluma	Marin.
Woodlawn Creamery	Chas. Casarotti, prop.	Nicasio	Marin.
Fallon Creamery	W. H. Roussell, mgr.	Fallon	Marin.
Tamales Creamery	L. C. Bailey, mgr.	Tamales	Marin.
Whitesboro Creamery	M. D. Gray, sec'ty	Albion	Mendocino.
Greenwood Creamery	M. A. Gilkison, sec'ty.	Elk	Mendocino.
Manchester Creamery	F. D. Albee, sec'ty	Manchester	Mendocino.
Hopland Creamery	A. W. Foster, prop.	Hopland	Mendocino.
Point Arena Creamery	J. C. Halliday, sec'ty.	Point Arena	Mendocino.
Sheppard Creamery	Jos. Sheppard, prop.	Point Arena	Mendocino.
Bridgeport Creamery	J. W. Hall, mgr.	Bridgeport	Mendocino.
Los Banos Creamery	W. E. Hayes, mgr.	Los Banos	Merced.
Dos Palos Creamery	C. O. Miller, mgr.	Dos Palos	Merced.

CREAMERIES OF CALIFORNIA—Continued.

Name of Creamery.	Proprietor, Manager, or Secretary.	Postoffice.	County.
Fountain City Creamery	R. L. King, mgr.	Merced	Merced.
Adin Creamery	E. M. Wilson, sec'ty.	Adin	Modoc.
Armstrong Creamery	J. G. Armstrong, pro.	Salinas	Monterey
Williams Creamery	M. Williams, prop.	Salinas	Monterey.
Del Monte Creamery	Mrs. K. Hatton, prop.	Monterey	Monterey.
Gonzales Creamery	Ramella & Co., props.	Gonzales	Monterey.
Castroville Creamery	L. Griffin, secretary	Castroville	Monterey.
Meadows Creamery	Jas. Meadows, prop.	Monterey	Monterey.
Bolsa Creamery	Mrs. H. Miller, prop.	Castroville	Monterey.
Fontes & Silveira	Fontes & Silveira, pro.	Salinas	Monterey.
Santa Lucia Creamery	Spreckels Sugar Co.	King City	Monterey.
Crystal Brook Creamery	J. Vosti & Co., props.	Chualar	Monterey.
Salinas Creamery	W. T. Mitchell, mgr.	Salinas	Monterey.
Taplin Creamery	Taplin Bros., props.	St. Helena	Napa.
Riverdale Creamery	J. A. Stanley, prop.	Napa	Napa.
Jersey Creamery	S. J. McFarland, pro.	Napa	Napa.
Penn Valley Creamery	E. A. Horton, sec'ty.	Rough and Ready	Nevada.
Anaheim Creamery	D. Raab & Son, props.	Anaheim	Orange.
Delhi Creamery	B. H. Wilson, mgr.	Santa Ana	Orange.
Westminster Farmers Cr'y.	W. H. Young, mgr.	Westminster	Orange.
Oak Leaf Creamery	P. A. Raab, prop.	Bolsa	Orange.
Westminster Butter Co.	Walton & Thompson	Orange	Orange.
Mohawk Creamery	H. Thielbar & Co., pro.	Washington	Plumas.
Woodhead Creamery	American Land and Cattle Co.	San Jacinto	Riverside.
Rincon Creamery	L. Richenberg, prop.	Rincon	Riverside.
Frink Creamery	W. H. Frink, prop.	El Casco	Riverside.
T. C. Creamery	Francis & Smithers	El Casco	Riverside.
Riverside Creamery	J. W. Chase, prop.	Arlington	Riverside.
Helvetia Creamery	A. Domenigoni, prop.	Winchester	Riverside.
Winchester Creamery	D. O. Leary, mgr.	Winchester	Riverside.
San Jacinto Creamery	F. B. Record, mgr.	San Jacinto	Riverside.
Singleton Creamery	W. H. Singleton, pro.	El Casco	Riverside.
Star Creamery	T. J. Stephenson, sec.	Courtland	Sacramento.
Elk Grove Creamery	G. M. Colton, prop.	Elk Grove	Sacramento.
Glanndale Creamery	F. W. Ehrhart, sec.	Franklin	Sacramento.
Crystal Creamery	Geo. G. Knox, mgr.	Sacramento	Sacramento.
Isleton Creamery	J. W. Sage, mgr.	Isleton	Sacramento.
The Creamery	R. Pozzi, mgr.	Sacramento	Sacramento.
Hollister Creamery	P. J. Dooling, sec'ty.	Hollister	San Benito.
San Juan Creamery	W. S. Hayden, sec'ty.	San Juan	San Benito.
Ranch Verde Creamery	J. A. Cole, mgr.	Victor	San Bernardino.
Chino Valley Creamery	R. C. Steele, mgr.	Chino	San Bernardino.
Santa Ysabel Creamery	S. Rotanzi, manager.	Santa Ysabel	San Diego.
Holliday Creamery	C. L. Holliday, prop.	San Pasqual	San Diego.
Olive Creamery	W. H. H. Dinwiddie	Valley Center	San Diego.
Escondido Creamery	H. A. Kelly, prop.	Escondido	San Diego.
Circle Creamery	S. F. Wood, prop.	Escondido	San Diego.
San Pasqual Creamery	John Judson, prop.	San Pasqual	San Diego.
New England Creamery	W. B. Hage, prop.	San Diego	San Diego.
San Francisco Creamery	Murphy & Paul, props.	San Francisco	San Francisco.
Fairville Creamery	I. Sartori & Co., props.	San Francisco	San Francisco.
California Creamery	Hilman & Cotter, pro.	San Francisco	San Francisco.
Western Creamery	Julius Jorgen, prop.	San Francisco	San Francisco.
Foxhall Creamery	G. A. Romands, prop.	San Francisco	San Francisco.

CREAMERIES OF CALIFORNIA—Continued.

Name of Creamery.	Proprietor, Manager, or Secretary.	Postoffice.	County.
Stockton Creamery	Chas. B. Stowe, mgr.	Stockton	San Joaquin.
Lewis Creamery	Lewis Bros., props.	Bellota	San Joaquin.
Lockeford Creamery	Wm. Jones, mgr.	Lockeford	San Joaquin.
Linden Creamery	C. H. Grupe, mgr.	Linden	San Joaquin.
San Joaquin Creamery	F. H. Amsburger, mgr.	Stockton	San Joaquin.
Union Creamery	A. Zoppi, secretary	San Luis Obispo	San Luis Obispo.
Arroyo Creamery	R. S. Lowe, mgr.	Arroyo Grande	San Luis Obispo.
Fairview Creamery	E. Biaggini, prop.	Cayucos	San Luis Obispo.
Cold Spring Creamery	M. Righetti, prop.	Cayucos	San Luis Obispo.
Sunset Creamery	V. S. Howard, mgr.	Halfmoon Bay	San Mateo.
Steele Creamery	F. N. Steele, prop.	Pescadero	San Mateo.
Pescadero Creamery	J. C. Williamson, sec.	Pescadero	San Mateo.
Muscio Creamery	G. Muscio, prop.	Los Alamos	Santa Barbara.
Point Sal Creamery	B. Pezzoni, mgr.	Guadalupe	Santa Barbara.
Goleta Creamery	F. E. Kellogg, prop.	Goleta	Santa Barbara.
Lompoc Creamery	J. Klein, secretary	Lompoc	Santa Barbara.
Los Alamos Creamery	Geo. A. Smith, mgr.	Los Alamos	Santa Barbara.
Guadalupe Creamery	E. J. Pizzini, sec'ty	Guadalupe	Santa Barbara.
Elwood Creamery	Elwood Cooper, prop.	Santa Barbara	Santa Barbara.
San José Creamery	Geo. E. Graf, prop.	San José	Santa Clara.
Model Creamery	G. E. Newman, prop.	San José	Santa Clara.
Seaside Creamery	L. Moretti, manager	Coast	Santa Cruz.
Baldwin Creamery	E. E. Anderson, mgr.	Santa Cruz	Santa Cruz.
Wilder Creamery	D. D. Wilder, prop.	Santa Cruz	Santa Cruz.
Respini Creamery	J. Respini & Co., props	Coast	Santa Cruz.
Watsonville Creamery	W. A. Trafton, sec'ty	Watsonville	Santa Cruz.
Springbrook Creamery	A. E. Strang, mgr.	Sierraville	Sierra.
"66" Creamery	J. S. Matthews & Son	Fort Jones	Siskiyou.
Walker Creamery	J. H. Walker & Son	Etna	Siskiyou.
Marigold Creamery	S. H. Williams, prop.	Mayten	Siskiyou.
Siskiyou Creamery	C. H. Green, mgr.	Fort Jones	Siskiyou.
Edgewood Creamery	E. B. Cavanaugh, sec.	Edgewood	Siskiyou.
Scott Valley Creamery	B. Dunn, mgr.	Etna	Siskiyou.
Montezuma Creamery	F. Dodini, proprietor	Dutton's Landing	Solano.
Crescent Island Creamery	S. Dodini, proprietor	Dutton's Landing	Solano.
Golden Creamery	Jos. Scaronini, mgr.	Dutton's Landing	Solano.
Solano Creamery	M. F. Bacciorini, mgr.	Dutton's Landing	Solano.
Yolo Creamery	Victor Yolo, mgr.	Dutton's Landing	Solano.
Dixon Creamery	F. A. Hutton, sec'ty	Dixon	Solano.
Bloom Creamery	A. J. Bloom, mgr.	Petaluma	Sonoma.
Denman Creamery	J. R. Denman, prop.	Petaluma	Sonoma.
Excelsior Creamery	M. Pozzi, prop.	Healdsburg	Sonoma.
Taylor Creamery	D. Taylor, prop.	Smith's Ranch	Sonoma.
Redwood Creamery	I. Sartori & Co., props	Duncan Mills	Sonoma.
Rule Creamery	Chas. Rule, prop.	Duncan Mills	Sonoma.
Huichica Creamery	Chas. Fillipini, prop.	Sonoma	Sonoma.
Markham Creamery	Ottolini & Albertoni	Markham	Sonoma.
Knights Valley Creamery	Chas. Tamagni, prop.	Kellogg	Sonoma.
Bloomfield Creamery	J. R. Denman, prop.	Bloomfield	Sonoma.
Linebaugh Creamery	R. A. Linebaugh, pro.	Petaluma	Sonoma.
Hill Creamery	Wm. Hill, proprietor	Petaluma	Sonoma.
Fair Estate Creamery	H. G. Sinclair, mgr.	Petaluma	Sonoma.
Clover Farm Creamery	Louis Pedrotti, prop.	Santa Rosa	Sonoma.
Two Rock Creamery	Hugh Gaston, prop.	Petaluma	Sonoma.
Russian River Creamery	J. Pedrotti, prop.	Markham	Sonoma.

CREAMERIES OF CALIFORNIA—Continued.

Name of Creamery.	Proprietor, Manager, or Secretary.	Postoffice.	County.
Sears Point Creamery.....	G. Masciorini, prop.	Glen Ellen.....	Sonoma
Clover & Alfillaria Creamery	J. B. Doda, prop.	Fort Ross	Sonoma.
Piezzi Creamery.....	V. Piezzi, prop.....	Santa Rosa.....	Sonoma.
Edenco Creamery	T. G. King, prop.	Petaluma.....	Sonoma.
Bodega Creamery	J. D. Williams, mgr....	Smith's Ranch ..	Sonoma.
Burdell Creamery	Western Refrig't'g Co.	Petaluma.....	Sonoma.
DeLaval Creamery	V. Nisson, prop.....	Petaluma.....	Sonoma.
Gaver Creamery.....	M. J. Pellascio, prop.	Valley Ford	Sonoma.
Ceres Creamery	L. Whitmore, mgr....	Ceres	Stanislaus.
Oakdale Creamery	E. M. Endicott, mgr.	Oakdale	Stanislaus.
Acme Creamery.....	Schulz, Niggle & Co.	Newman	Stanislaus.
New Era Creamery	A. M. Williams, sec'ty.	Newman	Stanislaus.
Modesto Creamery	J. H. Severin, mgr.	Modesto	Stanislaus.
Meridian Creamery	W. G. Baylis, mgr.	Meridian	Sutter.
Verona Creamery	Grimes & Webb, props.	Verona	Sutter.
Vina Creamery.....	Jane L. Stanford, prop.	Vina.....	Tehama.
Sunflower Creamery	Ridgway Bros., prop.	Porterville	Tulare.
Traver Creamery.....	H. R. Peacock, prop.	Traver.....	Tulare.
Dresser Creamery	A. R. Dresser, prop.	Tipton	Tulare.
Stewart Creamery	J. L. Stewart, prop.	Tulare.....	Tulare.
Woodville Creamery	Geo. Claus, manager.	Woodville	Tulare.
Zumwalt Creamery	D. K. Zumwalt, prop.	Visalia.....	Tulare.
Banner Creamery	P. Mogensen, prop.	Dinuba	Tulare.
Tulare Creamery	A. O. Thompson, mgr.	Tulare.....	Tulare.
Knights Landing Creamery	G. G. Knox, mgr.	Grafton	Yolo.
Woodland Creamery	H. S. Joslyn, sec'ty...	Woodland.....	Yolo.
Esparto Creamery	Esparto Creamery Co.	Esparto.....	Yolo.

CONDENSED MILK FACTORIES.

Pacific Creamery Co.....	Geo H. Stewart, mgr.	Buena Park	Orange.
American Cond. Milk Co.....		Benicia.....	Solano.
Coldbrook Creameries Co....	J. E. Holmes, mgr.	Loleta	Humboldt.
Russell Cream Co.....	Russell Bros., props.	San Francisco	San Francisco.
Valley Cond. Milk Co.....	F. D. Smith, mgr.	Visalia	Tulare.

CHEESE MANUFACTURERS.

Register No.	Name.	Postoffice.	County.
1.	Fallon Creamery Company	Fallon	Marin.
2.	Novato Land Company	Novato	Marin.
3.	Anselmini & Williams	Gonzales	Monterey.
4.	Agostini & Beffa	Salinas	Monterey.
5.	Brown & Steele	Pescadero	San Mateo.
6.	J. & P. O'Connor	San Luis Obispo	San Luis Obispo.
7.	Hanford Cheese Manufacturing Co.	Hanford	Kings.
8.	Pescadero Creamery Company	Pescadero	San Mateo.
9.	Carlow R. Wilson	Gilroy	Santa Clara.
10.	H. A. Voorman	Bouldin Island	San Joaquin.
11.	Walter W. Cooke	Downey	Los Angeles.
12.	E. W. Steele Estate	Edna	San Luis Obispo.
13.	Lake Side Cheese Factory	Hanford	Kings.
14.	Miller & Lux	Los Banos	Merced.
15.	Alex. Watson	Gilroy	Santa Clara.
16.	Pacific Improvement Company	Salinas	Monterey.
17.	Pacific Improvement Company	Monterey	Monterey.
18.	Manuel Quilla	Redwood City	San Mateo.
19.	G. H. Steele	Pescadero	San Mateo.
20.	William Hoffnecht	Merced	Merced.
21.	Y. Madini	Chualar	Monterey.
22.	Richard Brem	Gilroy	Santa Clara.
23.	John Meschini	Natividad	Monterey.
24.	George F. Mitchell	Hollister	San Benito.
25.	J. D. Carr	Salinas	Monterey.
26.	G. Schrepfer	Gilroy	Santa Clara.
27.	Alamitos Cheese Factory	Long Beach	Los Angeles.
28.	Sargent & Curry	Sargents	Santa Clara.
29.	J. P. Sargent	Sargents	Santa Clara.
30.	M. Roonan	San Juan	San Benito.
31.	Siskiyou Creamery	Fort Jones	Siskiyou.
32.	John Phelps	Nicolaus	Sutter.
33.	James Phillipini	Coast	Santa Cruz.
34.	Dan Willson	San Juan	San Benito.
35.	J. S. Benardi	Halfmoon Bay	San Mateo.
36.	A. Quintani	San Luis Obispo	San Luis Obispo.
37.	Crown Cheese Factory	Upper Lake	Lake.
38.	A. B. Hasbrouck	Musick	San Luis Obispo.
39.	John McDonald	Marshall	Marin.
40.	Y. Malarin	Salinas	Monterey.
41.	B. Sargents	Gilroy	Santa Clara.
42.	R. Eschenberg	Gilroy	Santa Clara.
43.	Zumwalt Creamery	Visalia	Tulare.
44.	Anchor Cheese Factory	Compton	Los Angeles.
45.	Crow's Cheese Factory	Crow's Landing	Stanislaus.
46.	G. M. Gicavonini	Newman	Stanislaus.
47.	E. A. Davison	Bellota	San Joaquin.

CHEESE MANUFACTURERS—Continued.

Register No.	Name.	Postoffice.	County.
48.	John Burns	Nicolaus	Sutter.
49.	Horace Nelson	Purissima	San Mateo.
50.	C. F. Andrews	Cayucos	San Luis Obispo.
51.	J. A. Leitner	San Luis Obispo	San Luis Obispo.
52.	James Braghetti	Pescadero	San Mateo.
53.	E. C. Steele	Pescadero	San Mateo.
54.	M. P. Avilla	Arroyo Grande	San Luis Obispo.
55.	San Bernardino Creamery	San Bernardino	San Bernardino.
56.	V. Mattei	Pescadero	San Mateo.
57.	F. Vile	San Felipe	Santa Clara.
58.	Gottoni & Foletta	Chualar	Monterey.
59.	Bakersfield Creamery	Bakersfield	Kern.
60.	W. C. Doan	Gilroy	Santa Clara.
61.	Clark S. Putnam	San Felipe	Santa Clara.
62.	Albert S. Orr	San Felipe	Santa Clara.
63.	A. Brown	Kernville	Kern.
64.	S. M. Maze	Gilroy	Santa Clara.
65.	Jules Zuck	Gilroy	Santa Clara.
66.	C. F. Roth	Nicolaus	Sutter.
67.	N. L. Ferry	Haywards	Alameda.
68.	Frank Muller & Bro.	Sonoma	Sonoma.
69.	Fred Nuenschwander	Napa	Napa.
70.	R. Nichols	Sheldon	Sacramento.
71.	Dos Palos Creamery	Dos Palos	Merced.
72.	A. T. Lewis	El Verano	Sonoma.
73.	Bonzani & Cattini	Pescadero	San Mateo.
74.	S. M. Harvey	Galt	Sacramento.
75.	John Bonzani	Pescadero	San Mateo.
76.	Antone Bonzani	Pescadero	San Mateo.
77.	Santa Clara Cheese Manufacturing Co.	Santa Clara	Santa Clara.
78.	D. Peddrazzi	Carmel	Monterey.
79.	Woodland Creamery	Woodland	Yolo.
80.	Hollister Creamery	Hollister	San Benito.
81.	Respini & Moretti	Santa Cruz	Santa Cruz.
82.	A. Forni	Newman	Stanislaus.
83.	Pioneer Creamery and Cheese Factory	Sierra Valley	Sierra.
84.	L. Vanoni	Tres Pinos	San Benito.
85.	Willow Oak Park Cheese Factory	Woodland	Yolo.
86.	B. Sheiber	814 J St., Sacramento	Sacramento.
87.	P. Scaroni & Co.	Santa Cruz	Santa Cruz.
88.	Frank Pierce	Pismo	San Luis Obispo.
89.	Doan Bros.	Gilroy	Santa Clara.
90.	R. E. & L. R. Steele	Pescadero	San Mateo.
91.	Waucoba Creamery	Bishop	Inyo.
92.	Geo. Bryte	1119 E St., Sacramento	Sacramento.
93.	Ashland Cheese Factory	1119 E St., Sacramento	Sacramento.
94.	Excelsior Creamery Company	Ferndale	Humboldt.
95.	G. J. Jarvis	San Felipe	Santa Clara.
96.	Ambrose Gianoni	Coast	Santa Cruz.
97.	Helvetia Cheese Factory	Newman	Stanislaus.
98.	Pomponi Cheese Factory	Pescadero	San Mateo.
99.	M. Santos	Pescadero	San Mateo.
100.	Antonio Maria	Pescadero	San Mateo.
101.	Pigeon Point Cheese Factory	Pescadero	San Mateo.
102.	San Gregorio Creamery	San Gregorio	San Mateo.
103.	Grizzly Bluff Creamery	Ferndale	Humboldt.

CHEESE MANUFACTURERS—Continued.

Register No.	Name.	Postoffice.	County.
104.	Amos Lester	Gilroy	Santa Clara.
105.	John Soyzer	Sur	Monterey.
106.	Ellis & Son	Gilroy	Santa Clara.
107.	Mrs. Emily P. Miller	Craig	Modoc.
108.	Hopland Creamery and Cheese Factory	Hopland	Mendocino.
109.	John Birks	Meridian	Sutter.
110.	John V. Souza	San Gregorio	San Mateo.
111.	G. S. Nash	Hollister	San Benito.
112.	San Luis Rey Creamery	San Luis Rey	San Diego.
113.	Chas. F. Silva	Nicolaus	Sutter.
114.	M. T. Silva	Grafton	Yolo.
115.	Silvio Adani	Wild Flower	Fresno.
116.	D. F. Newsome	Arroyo Grande	San Luis Obispo.
117.	Joseph Saner & Bro.	Galt	Sacramento.
118.	Gobby Bros.	Fresno	Fresno.
119.	E. Dotta	Salinas	Monterey.
120.	J. D. Enright	Santa Cruz	Santa Cruz.
121.	Sheiber Bros. & Co.	Nicolaus	Sutter.
122.	M. P. Kelley	Gonzales	Monterey.
123.	M. M. Burber	Edna	San Luis Obispo.
124.	P. Castillon & Bro.	Gilroy	Santa Clara.
125.	A. Gila	Tres Pinos	San Benito.
126.	John M. Rupe	Willits	Mendocino.
127.	Edward Watkin	San Luis Obispo	San Luis Obispo.
128.	Elliott Bros.	Salida	Stanislaus.
129.	Silliman Bros.	Watsonville	Santa Cruz.
130.	Dr. J. Doan	Gilroy	Santa Clara.
131.	Winchester Creamery Association	Winchester	Riverside.
132.	San Jacinto Valley Creamery Association	San Jacinto	Riverside.
133.	Wilson's Cheese Factory	Etna Mills	Siskiyou.
134.	M. S. Nunes	Castroville	Monterey.
135.	P. Beck	Grafton	Yolo.
136.	G. Berra	San Luis Obispo	San Luis Obispo.
137.	Orestimba Cheese Factory	Crow's Landing	Stanislaus.
138.	E. A. Sawyer	Hollister	San Benito.
139.	James Lonstalet	Gilroy	Santa Clara.
140.	Mrs. M. Marti	Sonoma	Sonoma.
141.	A. Badasci	Gonzales	Monterey.
142.	A. Honsinger	Pescadero	San Mateo.
143.	Louis Dotta	Pescadero	San Mateo.
144.	Joseph Lauson	Long Beach	Los Angeles.
145.	A. Saner	Cosumnes	Sacramento.
146.	Balty Schular	Cosumnes	Sacramento.
147.	Antoine Scheiber	119 J St., Sacramento	Sacramento.
148.	A. Sciligo	Napa	Napa.
149.	C. Trought	Carlisle	Fresno.
150.	C. Perkins	Sacramento	Sacramento.
151.	F. Parker	Nicolaus	Sutter.
152.	J. Victorine	Pacific Grove	Monterey.
153.	Machado & Lucas	San Luis Obispo	San Luis Obispo.
154.	Donnelly, Dunn & Co.	Isleton	Sacramento.
155.	Donnelly, Dunn & Co.	Tres Pinos	San Benito.
156.	Frank Linggy	Sacramento	Sacramento.
157.	L. Ottolini	Tres Pinos	San Benito.
158.	Leoni Bros.	P. O. Box 892, Fresno	Fresno.
159.	A. Budasci & Co.	Gonzales	Monterey.

CHEESE MANUFACTURERS—Continued.

Register No.	Name.	Postoffice.	County.
160.	Hutchinson & Brown	Temecula	Riverside.
161.	Reeves & Son	Gilroy	Santa Clara.
162.	W. W. Tippins	Nicolaus	Sutter.
163.	J. Joaquin	San Gregorio	San Mateo.
164.	Forest Lake Creamery	Forest Lake	San Joaquin.
165.	Frank Macchi	San Gregorio	San Mateo.
166.	B. Cavalli & Co.	La Honda	San Mateo.
167.	John Cereni	P. O. Box 1162, Fresno.	Fresno.
168.	W. W. Boust	Malaga	Fresno.
169.	Robert Doran	Tipton	Tulare.
170.	Hueneme Creamery	Hueneme	Ventura.
171.	W. R. Smith	Lillis	Fresno.
172.	P. Gubbini	Halfmoon Bay	San Mateo.
173.	P. Riley	Santa Rosa	Sonoma.
174.	F. M. Baker	Modesto	Stanislaus.
175.	Herman Piper	Bakersfield	Kern.
176.	C. Bizzini	San Lucas	Monterey.
177.	J. S. Stewart	Tulare	Tulare.
178.	Fair View Creamery	Round Valley	Inyo.
179.	John Mulligan	San Juan	San Benito
180.	John Millerick	San José	Santa Clara
181.	Jos. Demichelis	Modesto	Stanislaus.
182.	Robert Johnston	Nicolaus	Sutter.
183.	Bolla & Co.	Petaluma	Sonoma.
184.	Aquilino Rodoni	Pescadero	San Mateo.
185.	John M. Penlaud	Cedarville	Modoc.
186.	W. H. Smith	Norwalk	Los Angeles.
187.	Frank Silva	Newman	Stanislaus.
188.	Arnold Blaettles	Salinas	Monterey.
189.	Joseph Gwerder	Ryde	Sacramento.
190.	Scott Valley Creamery	Etna Mills	Siskiyou.
191.	E. A. Denicke .....	.....	San Francisco.
192.	Antonio La Franchi	Halfmoon Bay	San Mateo.
193.	John Offutt	Petaluma	Sonoma.
194.	M. O'Ryan	Hanford	Kings.
195.	Peter Seigerest	Sonoma	Sonoma.
196.	James H. Cocke	Downey	Los Angeles.
197.	Thos. Reddington	Verona	Sutter.
198.	Frank Miller	San Pablo	Contra Costa.
199.	S. Genardini	Cayucos	San Luis Obispo.
200.	A. Bassetti	La Honda	San Mateo.
201.	W. M. Turner	Sierra Valley	Sierra.
202.	Henry Sanderson	Madera	Madera.
203.	San Andreas Cheese Factory	Isleton	Sacramento.
204.	William Murray	Sonoma	Sonoma.
205.	Meridian Co-operative Creamery Co.	Meridian	Sutter.
206.	R. M. Smith	Sur	Monterey.
207.	D. Bizzini	Newman	Stanislaus.
208.	Pozzi & Deromeri	Wild Flower	Fresno.
209.	Kronemacher & Kohler	828 L St., Sacramento.	Sacramento.
210.	Emma A. Henderson	Lakeside	San Diego.
211.	Allen Matlick	Bishop	Inyo.
212.	R. S. Wight	Fresno	Fresno.
213.	Watson Ranch Creamery	Long Beach	Los Angeles.
214.	P. F. Sargenti	Bouldin Island	San Joaquin.
215.	Manfrini Bros.	San Luis Obispo	San Luis Obispo.

CHEESE MANUFACTURERS—Continued.

Register No.	Name.	Postoffice.	County.
216.	Bernhard Maier	Rincon	Riverside.
217.	D. L. W. Hoffman	Grand Island	Colusa.
218.	I. J. Hastings	Lookout	Modoc.
219.	John Berini	Portolo	San Mateo.
220.	Mrs. Hennessy	Verona	Sutter.
221.	Oliver Orr	San Felipe	Santa Clara.
222.	Charles H. Lamb	Lake City	Modoc.
223.	Eugene Daneri	Halfmoon Bay	San Mateo.
224.	F. Alves	Pescadero	San Mateo.
225.	Joseph Felder	Sonoma	Sonoma.
226.	John N. Pereira	San Gregorio	San Mateo.
227.	S. Reible	Sonoma	Sonoma.
228.	L. Summey	Meridian	Sutter.
229.	M. J. Pimentel	Pescadero	San Mateo.
230.	Mahon Bros.	Verona	Sutter.
231.	B. F. Gould	Soledad	Monterey.
232.	Patrick Doyle	Verona	Sutter.
233.	Harry C. McKinstry	Newman	Stanislaus.
234.	August Surtman	San Gregorio	San Mateo.
235.	S. Albertini	Halfmoon Bay	San Mateo.
236.	Orrin Wylie	Verona	Sutter.
237.	C. Lombardi	Santa Cruz	Santa Cruz.
238.	Vanoni Bros.	La Honda	San Mateo.
239.	M. F. McNamara	Verona	Sutter.
240.	J. W. Azeveda	Watsonville	Santa Cruz.
241.	G. Martella	Guadalupe	Santa Barbara.
242.	Respini & Moretti	Santa Cruz	Santa Cruz.
243.	William Armes	Beckwith	Plumas.
244.	Chino Valley Creamery	Chino	San Bernardino.
245.	Joseph Kiser	Concord	Contra Costa.
246.	John Grossman	Sacramento	Sacramento.
247.	Ritter Bros.	Sheldon	Sacramento.
248.	Vetalia Pedroli & Co.	Sacramento	Sacramento.
249.	J. McKindley	Cosumnes	Sacramento.
250.	G. Lanini	Gonzales	Monterey.
251.	J. B. Reible	Sonoma	Sonoma.
252.	M. C. Fraters	Los Olivos	Santa Barbara.
253.	George A. Smith	Los Angeles	Los Angeles.
254.	E. S. Waters	King City	Monterey.
255.	E. Vasquez	Sur	Monterey.
256.	J. R. Waters	Sur	Monterey.
257.	Frank Wattle	San José	Santa Clara.
258.	P. Morgensen	San Juan	San Benito.
259.	Ramelli & Co.	Gonzales	Monterey.
260.	M. LaFranchi	Santa Rosa	Sonoma.
261.	Morris Engle	Grafton	Yolo.
262.	James McCormick	Halfmoon Bay	San Mateo.
263.	J. W. Downing	Fresno	Fresno.
264.	L. E. Davis	Hollister	San Benito.
265.	W. O. Olmstead	Wheatland	Yuba.
266.	Thomas Patton	Fort Jones	Siskiyou.
267.	A. Souza	Woodside	San Mateo.
268.	C. Bondietti	Salinas	Monterey.
269.	Charles McCoy	Soledad	Monterey.
270.	James McCormick	Pescadero	San Mateo.
271.	Louis E. Gobby	Fresno	Fresno.

CHEESE MANUFACTURERS—Continued.

Register No.	Name.	Postoffice.	County.
272.	Levy Bros.	Pescadero	San Mateo.
273.	Arroyo Seco Cheese Factory	Soledad	Monterey.
274.	Patrick McKenna	Tres Pinos	San Benito.
275.	Joseph S. Lewis	Oceano	San Luis Obispo.
276.	Hugh Matthews	Emmett	San Benito.
277.	William King	Salinas	Monterey.
278.	Roethlisberger & Grasshoff	Novato	Marin.
279.	J. E. Reid	Kirkwood	Tehama.
280.	E. D. Moore	Pescadero	San Mateo.
281.	Charles P. Warburton	Hollister	San Benito.
282.	Pedrazzi & Violini	Gonzales	Monterey.
283.	H. A. Bingham	Los Angeles	Los Angeles.
284.	C. Badasci	Watsonville	Santa Cruz.
285.	Chas. Streng	Sonoma	Sonoma.
286.	E. A. Shaw	Pescadero	San Mateo.
287.	Anselmi & Corda	Gonzales	Monterey.
288.	Bedolla & Co.	San Luis Obispo.	San Luis Obispo.
289.	G. A. Pedrazzi	Hollister	San Benito.
290.	J. S. Bettencourt & Co.	Gilroy	Santa Clara.
291.	Dooling & O'Regan	Hollister	San Benito.
292.	Spreckels Sugar Co.	Gilroy	Santa Clara.
293.	E. W. Salt (Chico Creamery)	Chico	Butte.
294.	Nunes & Machada	Hanford	Kings.
295.	Speck & Carduff	Folsom	Sacramento.
296.	V. S. Howard & Co.	Halfmoon Bay	San Mateo.
297.	J. R. Turner	Riverdale	Fresno.
298.	G. E. Hall	Picines	San Benito.
299.	R. Silva	Gilroy	Santa Clara.
300.	Eagle Cheese Factory	San Juan	San Benito.
301.	M. Tomasini	Gonzales	Monterey.
302.	Chas. C. Phillips	Watsonville	Santa Cruz.
303.	J. Machado	Sargents	Santa Clara.
304.	M. Ryan	Hollister	San Benito.
305.	W. C. Chormicle	Santa Paula	Santa Paula.
306.	M. Evans	Ruby	Siskiyou.
307.	Jas. B. Richardson	Picard	Siskiyou.
308.	Laguna Cheese Factory	Los Alamos	Santa Barbara.
309.	Stella Wadsworth	Ruby	Siskiyou.
310.	Los Banos Creamery	Los Banos	Merced.
311.	Alturas Creamery Association	Alturas	Modoc.
312.	Hiram Richardson	Picard	Siskiyou.
313.	R. E. Madden	Picard	Siskiyou.
314.	University of California	Berkeley	Alameda.
315.	J. M. Christen	Pacheco	Contra Costa.
316.	John Thorne	Lafayette	Contra Costa.
317.	D. McCloskey	Hollister	San Benito.
318.	Enos Fontes	Lobetus	San Mateo.
319.	Wm. E. Bunker	Newman	Merced.
320.	J. B. Crow	Crow's Landing	Stanislaus.
321.	T. E. Roe	San Gregorio	San Mateo.
322.	Von Gruening Bros.	Norwalk	Los Angeles.
323.	A. L. Ellis	Gilroy	Santa Clara.
324.	R. Orsi	Green Meadows	Los Angeles.
325.	J. Dutra	Cloverdale	Sonoma.
326.	Anton Inderbitzen	Cosumnes	Sacramento.
327.	Filipe S. Brazil	Sargents	San Benito.

CHEESE MANUFACTURERS—Continued.

Register No.	Name.	Postoffice.	County.
328.	Foletta Bros.....	Swanton.....	Santa Cruz.
329.	Ryan & Maycock.....	Gilroy.....	Santa Clara.
330.	Hickmott Canning Company.....	Bouldin Island.....	San Joaquin.
331.	M. J. Silva.....	Watsonville.....	Santa Cruz.
332.	S. J. Wilson.....	Tassajara.....	Contra Costa.
333.	Somavia Bros.....	Gonzales.....	Monterey.
334.	M. Isidoro.....	Pescadero.....	San Mateo.
335.	F. H. Bennett.....	Verona.....	Sutter.
336.	Balestra & Gambetta.....	Agenda.....	Monterey.
337.	M. O. Rowe.....	Mulberry.....	San Benito.
338.	B. Bonzani.....	La Honda.....	San Mateo.
339.	P. Mogensen.....	Dinuba.....	Tulare.
340.	Charles Bernhard.....	Verona.....	Sutter.
341.	T. R. Dennison.....	Hanford.....	Kings.

NOTE.—The list above includes all the manufacturers who have been registered and who have taken out brands up to October 1, 1902.

APPENDIX.

LAW RELATIVE TO BUTTER AND CHEESE.

AN ACT TO PREVENT DECEPTION IN THE MANUFACTURE AND SALE OF BUTTER AND CHEESE, TO SECURE ITS ENFORCEMENT, AND TO APPROPRIATE MONEY THEREFOR.

[Approved March 4, 1897. Stats. 1897, p. 65.]

*The People of the State of California, represented in Senate and Assembly,
do enact as follows:*

SECTION 1. That for the purposes of this Act, every article, substance, or compound, other than that produced from pure milk or cream from the same, made in the semblance of butter, and designed to be used as a substitute for butter made from pure milk or cream from the same, is hereby declared to be imitation butter; and that for the purposes of this Act every article, substance, or compound, other than that produced from pure milk or cream from the same, made in the semblance of cheese, and designed to be used as substitute for cheese made from pure milk or cream from the same, is hereby declared to be imitation cheese; *provided*, that the use of salt, rennet, and harmless coloring matter for coloring the product of pure milk or cream, shall not be construed to render such product an imitation; *and provided*, that nothing in this section shall prevent the use of pure skimmed milk in the manufacture of cheese.

SEC. 2. No person, by himself or his agents or servants, shall render or manufacture, sell, offer for sale, expose for sale, or have in his possession with intent to sell, or use, or serve to patrons, guests, boarders, or inmates, in any hotel, eating-house, restaurant, public conveyance or boarding-house, or public or private hospital, asylum, or eleemosynary or penal institution, any article, product, or compound made wholly or partly out of any fat, oil, or oleaginous substance or compound thereof, not produced directly and at the time of manufacture from unadulterated milk or cream from the same, which article, product, or compound shall be colored in imitation of butter or cheese produced from unadulterated milk or cream from the same; *provided*, that nothing in this

section shall be construed to prohibit the manufacture or sale, under the regulations hereinafter provided, of substances or compounds designed to be used as an imitation or as a substitute for butter or cheese made from pure milk or cream from the same, in a separate and distinct form and in such a manner as will advise the consumer of its real character, free from coloration or ingredients that cause it to look like butter or cheese made from pure milk or cream, the product of the dairy.

SEC. 3. Each person, who, by himself or another, lawfully manufactures any substance designed to be used as a substitute for butter or cheese, shall mark by branding, stamping, or stenciling upon the top and sides of each tub, firkin, box, or other package in which such article shall be kept, and in which it shall be removed from the place where it is produced, in a clear and durable manner, in the English language, the words "substitute for butter," or "substitute for cheese," as the case may be, in printed letters in plain roman type, each of which shall not be less than one inch in height by one half inch in width, and in addition to the above shall prepare a statement, printed in plain roman type, of a size not smaller than pica, stating in the English language its name, and the name and address of the manufacturer, the name of the place where manufactured or put up, and also the names and actual percentages of the various ingredients used in the manufacture of such imitation butter or imitation cheese; and shall place a copy of said statement within and upon the contents of each tub, firkin, box, or other package, and next to that portion of each tub, firkin, box, or other package, as is commonly and most conveniently opened; and shall label the top and sides of each tub, firkin, box, or other package by affixing thereto a copy of said statement, in such manner, however, as not to cover the whole or any part of said mark of "substitute for butter," or "substitute for cheese."

SEC. 4. No person, by himself or another, shall knowingly ship, consign, or forward by any common carrier, whether public or private, any substance designed to be used as a substitute for butter or cheese, unless the same be marked and contain a copy of the statement, and be labeled as provided by section three of this Act; and no carrier shall knowingly receive the same for the purpose of forwarding or transporting, unless it shall be manufactured, marked, and labeled as hereinbefore provided, consigned, and by the carrier receipted for by its true name; *provided*, that this Act shall not apply to any goods in transit between foreign States and across the State of California.

SEC. 5. No person or his agent shall knowingly have in his possession or under his control any substance designed to be used as a substitute for butter and cheese, unless the tub, firkin, box, or other package containing the same shall be clearly and durably marked and contain a

copy of the statement, and be labeled as provided by section three of this Act; and if the tub, firkin, box, or other package be opened, then a copy of the statement described in section three of this Act shall be kept with its face up, upon the exposed contents of said tub, firkin, box, or other package; *provided*, that this section shall not be deemed to apply to persons who have the same in their possession for the actual consumption of themselves or family.

SEC. 6. No person, by himself or another, shall sell, or offer for sale, or take orders for the future delivery of, any substance designed to be used as a substitute for butter or cheese, under the name of or under the pretense that the same is butter or cheese; and no person, by himself or another, shall sell any substance designed to be used as a substitute for butter or cheese, unless he shall inform the purchaser distinctly, at the time of the sale, that the same is a substitute for butter or cheese, as the case may be, and shall deliver to the purchaser, at the time of the sale, a separate and distinct copy of the statement described in section three of this Act; and no person shall use in any way, in connection or association with the sale, or exposure for sale, or advertisement, of any substance designed to be used as a substitute for butter or cheese, the words "butterine," "creamery," or "dairy," or the representation of any breed of dairy cattle, or any combination of such words and representation, or any other words or symbols, or combinations thereof, commonly used by the dairy industry in the sale of butter or cheese.

SEC. 7. No keeper or proprietor of any bakery, hotel, boarding-house, restaurant, saloon, lunch-counter, or other place of public entertainment, or any person having charge thereof, or employed thereat, or any person furnishing board for others than members of his own family, or for any employes where such board is furnished as the compensation or as a part of the compensation of any such employé, shall place before any patron or employé, for use as food, any substance designed to be used as a substitute for butter and cheese, unless the same be accompanied by a copy of the statement described in section three of this Act, and by a verbal notification to said patron that such substance is a substitute for butter or cheese.

SEC. 8. No action can be maintained on account of any sale or other contract made in violation of, or with intent to violate, this Act by or through any person who was knowingly a party to such wrongful sale or other contract.

SEC. 9. Every person having possession or control of any substance designed to be used as a substitute for butter and cheese which is not marked as required by the provisions of this Act shall be presumed to have known, during the time of such possession or control, that the same was imitation butter, or imitation cheese, as the case may be.

SEC. 10. No person shall efface, erase, cancel, or remove any mark, statement, or label provided for by this Act, with intent to mislead, deceive, or to violate any of the provisions of this Act.

SEC. 11. No butter or cheese not made wholly from pure milk or cream, salt, harmless coloring matter, shall be used in any of the charitable or penal institutions that receive assistance from the State.

SEC. 12. Whoever shall violate any of the provisions or sections of this Act shall be deemed guilty of a misdemeanor, and shall, upon conviction thereof, be punished for the first offense, by a fine of not less than fifty dollars, nor more than one hundred and fifty dollars; or by imprisonment in the county jail for not exceeding thirty days; and for each subsequent offense, by a fine of not less than one hundred and fifty dollars nor more than three hundred dollars, or by imprisonment in the county jail not less than thirty days, nor more than six months, or by both such fine and imprisonment, at the discretion of the court. One half of all the fines collected under the provisions of this Act shall be paid to the person or persons furnishing information upon which conviction is procured.

SEC. 13. Whoever shall have possession or control of any imitation butter or imitation cheese, or any substance designed to be used as substitute for butter or cheese, contrary to the provisions of this Act, shall be construed to have possession of property with intent to use it as a means of committing a public offense, within the meaning of chapter three, of title twelve, of part two, of an Act to establish a Penal Code; *provided*, that it shall be the duty of the officer who serves a bench warrant issued for imitation butter or imitation cheese, or any substance designed to be used as a substitute for butter or cheese, to deliver to the Agent of the Dairy Bureau, or to any person by such Dairy Bureau authorized in writing to receive the same, a perfect sample of each article seized by virtue of such warrant, for the purpose of having the same analyzed, and forthwith to return to the person from whom it was taken the remainder of each article seized as aforesaid. If any sample be found to be imitation butter or imitation cheese, or substance designed to be used as a substitute for butter or cheese, it shall be returned to and retained by the magistrate as and for the purpose contemplated by section fifteen hundred and thirty-six of an Act to establish a Penal Code; but if any sample be found not to be imitation butter or imitation cheese, or a substance designed to be used as a substitute for butter or cheese, it shall be returned forthwith to the person from whom it was taken.

SEC. 14. It shall be the duty of the District Attorney, upon the application of the Dairy Bureau, to attend to the prosecution, in the

name of the State, of any suit brought for the violation of any of the provisions of this Act within his district.

SEC. 15. The Governor shall, on or before the first day of July, eighteen hundred and ninety-seven, appoint three resident citizens of this State, who shall have practical experience in the manufacture of dairy products, to constitute a State Dairy Bureau, and which shall succeed the one now in existence in every respect. Members of this Bureau shall hold office for the period of four years from and after the first day of July, eighteen hundred and ninety-seven, and until their successors are appointed and qualified; *provided*, that the first members appointed under the provisions of this Act shall at their first meeting so classify themselves by lot as that one shall go out of office at the expiration of two years, one at the expiration of three years, and the other at the expiration of four years. Any vacancy shall be filled by appointment by the Governor for the unexpired term. The members of said Bureau shall serve without compensation, and within twenty days after their appointment shall take the oath of office as required by the Constitution, and they shall thereupon meet and organize by electing a chairman and treasurer. Any one of them may be removed by the Governor for neglect or violation of duty. They shall make a report in detail to the Legislature not later than the first day of December next preceding the meetings thereof.

SEC. 16. It shall be the duty of the State Dairy Bureau to secure, as far as possible, the enforcement of this Act. The State Dairy Bureau shall have power to employ an agent at a salary of twelve hundred dollars a year, and such assistants or chemists as from time to time may be necessary therefor.

SEC. 17. There is hereby appropriated for the use of this State Dairy Bureau, out of any money in the State Treasury not otherwise appropriated, the sum of five thousand dollars for each fiscal year hereafter, and commencing with the forty-ninth fiscal year. All salaries, fees, costs and expenses of every kind incurred in the carrying out of the law shall be drawn from the sum so appropriated, and the State Controller shall draw his warrant on the State Treasurer in favor of the person entitled to the same.

SEC. 18. All Acts and parts of Acts inconsistent with this Act are hereby repealed.

SEC. 19. This Act shall take effect immediately.

“PROCESS” BUTTER LAW.

AN ACT TO PREVENT DECEPTION IN THE SALE OF PROCESS OR RENOVATED BUTTER.

[Became a law, under constitutional provision, without Governor's approval,
February 23, 1899. Stats. 1899, p. 25.]

*The People of the State of California, represented in Senate and Assembly,
do enact as follows:*

SECTION 1. No person or persons, firms or corporation, shall sell, or offer for sale, or have in his or their possession for sale, any butter manufactured by boiling, melting, deodorizing, or renovating, which is the product of stale, rancid, or decomposed butter, or by any other process whereby stale, rancid, or decomposed butter is manufactured to resemble or appear like creamery or dairy butter, unless the same is plainly stenciled or branded upon each and every package, barrel, firkin, tub, pail, square, or roll, in letters not less than one half inch in length, “process butter,” or “renovated butter,” in such a manner as the purchaser will be advised of the real character of such “process” or “renovated” butter.

SEC. 2. Whoever shall violate any of the provisions or sections of this Act shall be deemed guilty of a misdemeanor.

SEC. 3. It shall be the duty of the District Attorney of each and every county of this State, upon application, to attend to the prosecution in the name of the State of any action brought for the violation of any of the provisions of this Act within his district.

SEC. 4. The State Dairy Bureau, by its agent and assistant agents, is hereby authorized and directed to enforce all of the provisions of this Act. All fines and penalties for the violation of this Act shall be paid to the agent or assistant agents of the State Dairy Bureau, and by said Bureau paid to the State Treasurer.

SEC. 5. All Acts and parts of Acts inconsistent with the provisions of this Act are hereby repealed.

SEC. 6. This Act shall take effect on and after its passage.

CHEESE-GRADING LAW.

AN ACT DEFINING THE DIFFERENT GRADES OF CHEESE, AND FOR BRANDING THE SAME, MANUFACTURED IN THE STATE OF CALIFORNIA.

[Approved March 4, 1897. Stats. 1897, p. 69.]

*The People of the State of California, represented in Senate and Assembly,
do enact as follows:*

SECTION 1. Every person or persons, firm or corporation, who shall, at any creamery, cheese factory, or private dairy, manufacture cheese in the State of California, shall, at the place of manufacture, brand distinctly and durably on the bandage of each and every cheese manufactured, and upon the package or box, when shipped, the grade of cheese manufactured, as follows: "California Full-Cream Cheese," "California Half-Skim Cheese," and "California Skim Cheese."

SEC. 2. All brands for branding the different grades of cheese shall be procured from the State Dairy Bureau, and said Bureau is hereby directed and authorized to issue to all persons, firms, or corporations, upon application therefor, uniform brands, consecutively numbered, of the different grades specified in section one of this Act. The State Dairy Bureau shall keep a record of each and every brand issued, and the name and location of the manufacturer receiving the same. No manufacturer of cheese in the State of California, other than the one to whom such brand is issued, shall use the same, and in case of a change of location the party shall notify the Bureau of such change.

SEC. 3. The different grades of cheese are hereby defined as follows: Such cheese only as shall have been manufactured from pure milk, and from which no portion of the butter-fat has been removed by skimming or other process, and having not less than thirty per cent of butter-fat, shall be branded as "California Full-Cream Cheese"; and such cheese only as shall be made from pure milk, and having not less than fifteen per cent of butter-fat, shall be branded "California Half-Skim Cheese"; and such cheese only as shall be made from pure skim-milk shall be branded "California Skim Cheese"; *provided*, that nothing in this section shall be construed to apply to "Edam," "Brickstein," "Pineapple," "Limburger," Swiss or hand-made cheese, not made by the ordinary Cheddar process.

SEC. 4. No person or persons, firms or corporations, shall sell, or offer for sale, any cheese, manufactured in the State of California, not branded by an official brand and of the grade defined in section three of this Act.

SEC. 5. Whoever shall violate any of the provisions of this Act shall be deemed guilty of a misdemeanor, and shall, upon conviction thereof, be punished for the first offense by a fine of not less than twenty-five dollars (\$25) nor more than fifty dollars (\$50), or by imprisonment in the county jail for not exceeding twenty-five days; and for each subsequent offense by a fine of not less than fifty dollars (\$50) nor more than one hundred dollars (\$100), or by imprisonment in the county jail not less than fifty days nor more than one hundred days, or by both such fine and imprisonment, at the discretion of the court.

SEC. 6. All Acts or parts of Acts inconsistent with this Act are hereby repealed.

SEC. 7. This Act shall take effect sixty days after its passage.

STATE VETERINARIAN ACT.

AN ACT TO PROTECT DOMESTIC LIVESTOCK FROM CONTAGIOUS AND INFECTIOUS DISEASES; TO PROVIDE FOR THE APPOINTMENT AND DUTIES OF OFFICIALS TO CARRY INTO EFFECT THE PROVISIONS OF THIS ACT, AND TO PROVIDE AN APPROPRIATION THEREFOR.

[Became a law under constitutional provision, without Governor's approval, March 18, 1899. Stats. 1899, p. 129.]

*The People of the State of California, represented in Senate and Assembly,
do enact as follows:*

SECTION 1. The office of the State Veterinarian of the State of California is hereby created. It shall be the duty of the Governor, within sixty days from and after the passage of this Act, to appoint a skilled veterinary surgeon for the State of California to fill said office of State Veterinarian, who at the date of such appointment shall be a graduate in good standing of a recognized college of veterinary surgery, legally qualified to practice as such in this State, and shall hold his said office at the pleasure of the Governor. The salary of said veterinary surgeon shall on no account exceed the sum of two thousand dollars per year, and his necessary expenses incurred in the discharge of his duties here-

inafter provided for, not exceeding five hundred dollars per annum. In making said appointment it shall be the duty of the Governor to disregard political affiliations, and be guided in his selection merely by the professional and moral qualifications of said veterinary for the performance of his duties.

SEC. 2. It shall be the duty of the State Veterinarian, provided for in the first section of this Act to protect the health of all domestic animals of the State from all contagious and infectious diseases, so far as practicable; and for the purpose he is hereby authorized and empowered, by and with the approval of the Governor, to establish, maintain, and enforce such quarantine, sanitary, and other regulations as he may deem necessary as to stock passing over any quarantine line existing, or which may be established within the State, and all such stock so moving shall be inspected by him and he shall issue his certificate of State inspection, unless such stock shall have been, immediately prior to such moving, inspected by an officer or agent acting under the laws of the United States. Whenever it may be necessary to carry out and give effect to the provisions of this Act, the Governor is hereby authorized and empowered to appoint an Assistant State Veterinarian, whose tenure of office and salary shall be determined and fixed by the Governor.

SEC. 3. Upon information by him received of the existence of contagious or infectious diseases of domestic animals within this State, the State Veterinarian shall proceed to thoroughly investigate the same, and he is hereby authorized, by and with the approval of the Governor, to establish such quarantine, sanitary, and police regulation as may be necessary to circumscribe and exterminate such disease or diseases, and prevent the extension thereof, and he is hereby authorized and empowered to enter upon any grounds or premises and inspect any livestock necessary to carry out the provisions of this Act.

SEC. 4. Upon the discovery of any case of such contagious or infectious disease, the State Veterinarian shall immediately inform the State Dairy Bureau and the Board of Supervisors of the county or counties in which said disease exists, or diseased animals are located, of the existence of such disease and of such facts and circumstances in connection therewith as will enable said Board of Supervisors to take prompt and proper action to prevent the spread of such disease and to eradicate the same.

SEC. 5. Upon the receipt of such report, it shall be the duty of said Dairy Bureau when more than one county is involved, and of the Board of Supervisors when only one county is involved, to proceed immediately to eradicate or suppress said disease, to prevent its spread or introduction among healthy animals, or the infection of pastures, roads, places, or sections theretofore free from said disease and uninfected.

SEC. 6. Should said Board of Supervisors refuse or neglect for the period of five days to take any or proper action to quarantine such cases of contagious and infectious diseases so reported to them, or to suppress or eradicate the same, or prevent the spread thereof, the State Veterinarian shall have the power, and it shall be his duty, to quarantine such county, or such portions thereof as may be necessary, and thereafter it shall be unlawful for the owners of the domestic animals quarantined, their agents or employés, to move any of such animals across the quarantine line established, or without the county or portion thereof quarantined, without first obtaining a permit from said State Veterinarian, who shall, before such permit is issued, inspect and, if necessary, cause such animals and vehicles of transportation to be disinfected according to the rules laid down by the United States Bureau of Animal Industry, Department of Agriculture, or until such quarantine has been raised or discontinued by said State Veterinarian.

SEC. 7. The State Veterinarian shall determine, from time to time, the quarantine and other regulations necessary to prevent the spread among domestic animals of any malignant, contagious, or infectious disease, found to exist among the livestock of this State, and shall to that end coöperate with, and, so far as possible, obtain the assent of the proper United States authorities to the establishment or changing of quarantine lines, which are, or may be hereafter established, and when he shall have done so he shall notify the Governor thereof, who, if he approve, shall issue his proclamation proclaiming the boundary of such quarantine, and the orders, rules, and regulations prescribed for the maintenance and enforcement of such quarantine, and shall publish the same in such manner as he shall deem expedient.

SEC. 8. Any person failing to comply with the provisions of this Act shall be deemed guilty of a misdemeanor, and upon conviction be fined not less than one hundred nor more than five hundred dollars for each offense, and shall be liable for any damage and loss that may be sustained by any person or persons by reason of the failure of such owner or agent to comply with the provisions of this Act.

SEC. 9. For the purpose of carrying out the provisions of this Act, there shall be appropriated the sum of eight thousand dollars, not more than one thousand dollars payable out of the revenues for the current fiscal year, out of the general fund of this State.

SEC. 10. This Act shall be in force and effect from and after its passage.

LAW RELATING TO BABCOCK TESTING APPARATUS.

AN ACT TO ADD a NEW SECTION TO THE PENAL CODE, TO BE KNOWN AND
NUMBERED AS SECTION 381a.

[Became a law under constitutional provision, without Governor's approval,
March 16, 1901. Stats. 1901, p. 324.]

*The People of the State of California, represented in Senate and Assembly,
do enact as follows:*

SECTION 1. A new section is hereby added to the Penal Code, to be known and numbered as section three hundred and eighty-one a, and to read as follows:

381a. Any person, or persons, whether as principals, agents, managers or otherwise, who buy or sell dairy products, or deal in milk, cream, or butter, and who buy or sell the same upon the basis of their richness or weight or the percentage of cream or butter-fat contained therein, who use any apparatus, test-bottle, or other appliance, or who use the "Babcock test," or machine of like character, for testing such dairy products, cream, or butter, which is not accurate and correct, or which gives wrong or false percentages, or which is calculated in any way to defraud or injure the person with whom he deals, is guilty of a misdemeanor, and upon conviction shall be fined not more than five hundred dollars (\$500) or imprisoned in the county jail not more than six months.

SEC. 2. This Act shall take effect immediately.

BIENNIAL REPORT

OF THE

DEPARTMENT OF HIGHWAYS

DECEMBER, 1902.

N. ELLERY, - - - COMMISSIONER.



SACRAMENTO:

A. J. JOHNSTON, : : : : SUPERINTENDENT STATE PRINTING.
1902.

STATE CAPITOL, SACRAMENTO, CALIFORNIA,
DEPARTMENT OF HIGHWAYS,
November 25, 1902.

To His Excellency HENRY T. GAGE,

Governor of the State of California:

SIR: I herewith submit for your consideration the work of the Department of Highways, covering the period from April 1, 1900, to November 1, 1902, as provided for in Chapter CCLXXII of Statutes and Amendments, 1897; and, appended thereto, the Report of the Lake Tahoe Wagon Road Commissioner.

Very respectfully,

N. ELLERY,
Highway Commissioner.

Attest: C. W. VICKREY, Secretary.

REPORT OF THE DEPARTMENT OF HIGHWAYS.

The question of improved roads is one of vital importance in the development and internal improvement of this State. If California, with her extensive territory of varied soils, is to maintain and improve her industrial position, her people must recognize the necessity of better transportation facilities. We must begin with the fundamental part of the system—the highway—and undertake in some wise and sensible way to economically and systematically administer road affairs. The highway should certainly receive its share of improvement commensurate with the part it plays in the carrying system. To-day the railroads are expending millions of dollars annually for the reduction of grades and the straightening and bettering of their tracks, while the highway, a prime factor in the carrying capacity, remains with heavy grades and in a generally bad condition. Certainly, there has been some improvement in the roads of this State, and it is gratifying to note that since the awakening of the good roads movement, about seven years ago, there is a decided increase in permanent structures, such as vitrified-pipe culverts and stone and concrete bridges. But with these improvements remains the fact that, exclusive of the sums spent on the city and town streets, nearly \$2,000,000 has been expended annually on our county roads for the years 1900 and 1901. Of this high expenditure there has been expended in eleven counties of the State \$197,000 for the same periods on the bridges on such roads, part of which sum, not unlikely, was taken from other than county road funds. With the experience of our progressive Eastern States, the Dominion of Canada, and the Old World, there is one method open for the remedy of the bad condition of our highways. We should follow the example successfully applied by those States and countries and place our main highways under the direct management of the State.

Here are given some of the results recently accomplished in some of the Eastern States:

NEW YORK: Results accomplished in the four years since the Higbie-Armstrong law was passed:

Roads finished	59 miles.
Roads in process of construction	109 miles.
Roads awaiting construction, twenty counties having raised and ready for immediate use \$960,000, the half of the money	238 miles.
Roads mapped by Engineer's department	546 miles.
Roads surveyed by Engineer's department	704 miles.
Roads petitioned for by forty-one counties, including roads finished and in process	1,308 miles.

MASSACHUSETTS: At the end of the year 1900, Massachusetts had constructed 296 miles of State highways, while the total number of miles petitioned for by the several counties of the State up to the same year was 1,334 miles.

CONNECTICUT: During 1899 and 1900, the State of Connecticut was at work on an entire system of State highways, aggregating 1,400 miles and traversing every county within the State.

NEW JERSEY: Under the New Jersey State aid law the total number of miles of road constructed up to 1900 was 532.11, and the cost was \$865,318.55. The aggregate number of miles petitioned for up to same time by all the counties was 1,023.84 miles.

Besides this summary of work in a few of our most progressive States, the province of Ontario has appropriated \$1,000,000 for the construction of object-lesson roads, and the impetus given the road improvement question has created good results in nearly all the Southern, Eastern, and Middle West States, and now California has, by a vote of the people, amended her Constitution to allow of the establishment of a State highway system.

The Bureau of Highways, existing from 1895 to 1897, collected valuable data and made wise suggestions and recommendations regarding the future road work of this State. After the Bureau was succeeded by the Department of Highways, through a lack of the constitutional provision and of proper legislation there was not so much State road work as desired, accomplished. It is now hoped that some of the statutory measures advocated by the Bureau will be realized, so that this State may inaugurate a definite system of roads.

Herewith are recommended some measures designed to assist in putting the road subject on an economical and systematic basis:

I.

AN ACT TO CLASSIFY THE ROADS OF CALIFORNIA, AND TO DEFINE EACH CLASS.

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. The roads within the limits of the State of California shall hereafter be classified as follows: The first class to include all highways designated as State Highways; the second class to include all highways designated as County Thoroughfares; and the third class to include all highways designated as District Roads.

SEC. 2. The following roads, when definitely located by the Department of Highways, are hereby declared to belong to the first class:

1. A highway commencing on the State line between the State of California and the State of Oregon, at or near the point where the said State line is intersected by the road from Yreka, California, to Ashland, Oregon, and extending thence southerly, along the best grades and alignments, through the counties of Siskiyou, Shasta, Tehama, Butte, Yuba, Sutter, Sacramento, San Joaquin, Stanislaus, Merced, Madera, Fresno, Tulare, Kern, Los Angeles, Orange, and San Diego, to Tia Juana, in the last-named county.

2. A highway commencing at Crescent City, in Del Norte County, and extending south and southeasterly, on the best grades and alignments, through the counties of Del Norte, Humboldt, Mendocino, Sonoma, and Marin, to the City of Sausalito.

3. A highway commencing in the City and County of San Francisco, and extending thence southeasterly, on the best grades and alignments, through the counties of San Mateo, Santa Clara, San Benito, Monterey, San Luis Obispo, Santa Barbara, Ventura, and Los Angeles, to the City of Los Angeles.

4. A highway commencing at a point upon the State Highway through Tehama County, at or near the station of Tehama, and extending thence southerly, on the best grades and alignments, through the counties of Tehama, Glenn, Colusa, Yolo, and Solano, to the City of Vallejo.

5. A highway commencing at the City of Martinez, and extending thence southerly, on the best grades and alignments, through the counties of Contra Costa, Alameda, San Joaquin, Stanislaus, Merced, Fresno, Kings, and Kern, to a point on the State Highway through Kern County, at or near the City of Bakersfield.

6. A highway commencing at a point upon the State Highway through Siskiyou County, near the westerly base of Mount Shasta, and extending thence southerly, on the best grades and alignments, through the counties of Siskiyou, Shasta, Lassen, Plumas, Sierra, Nevada, Placer, El Dorado, Alpine, Mono, Inyo, and Kern, to Indian Wells, in the last-named county.

7. A highway commencing at the City of Arcata, in Humboldt County, and extending thence southeasterly, on the best grades and alignments, through the counties of Humboldt, Trinity, and Tehama, to a point on the State Highway through Tehama County, at or near the City of Red Bluff.

8. A highway commencing at a point on the State Highway through Shasta County, north of the City of Redding, and extending thence northeasterly, on the best grades and alignments, through the counties of Shasta, Lassen, and Modoc, to Fort Bidwell, in the last-named county.

9. A highway commencing at the City of Marysville, and extending thence northerly and northeasterly, on the best grades and alignments, through the counties of Yuba, Butte, Plumas, and Lassen, to Susanville, in the last-mentioned county.

10. A highway commencing at the City of Ukiah, and extending thence southerly, on the best grades and alignments, through the counties of Mendocino, Lake, and Yolo, to the City of Sacramento, thence easterly, through the counties of Sacramento and El Dorado, to a point on the State line between the State of California and the State of Nevada, at or near its intersection by the Lake Tahoe Wagon Road.

11. A highway commencing at or near the City of Santa Rosa, and extending thence southeasterly, on the best grades and alignments, through the counties of Sonoma, Napa, and Solano, to Suisun, in the last-named county.

12. A highway commencing at a point on the State Highway running north from Sacramento, and extending thence northeasterly, on the best grades and alignments, through the counties of Sacramento, Placer, Nevada, and Sierra, to a point on the State Highway through Sierra County, near Sierraville, in the last-mentioned county.

13. A highway commencing at the City of Oakland, and extending thence easterly, on the best grades and alignments, through the counties of Alameda, and San Joaquin, to a point on the State Highway through San Joaquin County, south of the City of Stockton.

14. A highway commencing at the City of Oakland, and running thence northerly and easterly, on the best grades and alignments, through the counties of Alameda and Contra Costa, to the City of Martinez.

15. A highway commencing at Ione, Amador County, and extending thence easterly, on the best grades and alignments, through Amador, Calaveras, Tuolumne, and Mariposa counties, to the county seat of the last-named county.

16. A highway commencing at a point on the State Highway through Santa Clara County, at or near the City of Gilroy, and extending thence northeasterly, on the best grades and alignments, through the counties of Santa Clara, San Benito, Merced, Mariposa, Tuolumne, and Mono, to a point on the State Highway through the last-named county, near Mono Lake.

17. A highway commencing at a point on the State Highway through Santa Clara County, at or near the City of Gilroy, and extending thence southeasterly and easterly, on the best grades and alignments, through the counties of Santa Clara, San Benito, and Fresno, to the City of Fresno.

18. A highway commencing at the City of Modesto and extending thence north-

easterly, on the best grades and alignments, through the counties of Stanislaus and Tuolumne, to the City of Sonora.

19. A highway commencing at or near the City of Hollister, and extending thence southeasterly, on the best grades and alignments, through the counties of San Benito and Fresno, to a point on the westerly State Highway through the last-named county, near Huron.

20. A highway commencing at a point on the State Highway through San Luis Obispo County, at or near San Miguel, and extending thence easterly, on the best grades and alignments, through the counties of San Luis Obispo and Kern, to a point on the westerly State Highway in the last-mentioned county.

21. A highway commencing at Port Harford, in San Luis Obispo County, and extending thence southeasterly and northeasterly, on the best grades and alignments, through the counties of San Luis Obispo, Santa Barbara, and Kern, to Indian Wells, in the last-named county.

22. A highway commencing at the City of Los Angeles and extending thence easterly, on the best grades and alignments, through the counties of Los Angeles and San Bernardino, to the City of San Bernardino; thence southwesterly, on the best grades and alignments, through the counties of San Bernardino, Riverside, and Orange, to the City of Santa Ana, in Orange County.

23. A highway commencing at a point on the State Highway through Shasta County, north of the City of Redding, and extending thence northwesterly, on the best grades and alignments, through the counties of Shasta and Trinity, to Weaverville, in the last-named county.

24. A highway commencing at Colusa, and extending thence westerly, on the best grades and alignments, through the county of Colusa, to a point on the State Highway through said county.

25. A highway commencing at Markleeville, and extending thence easterly, on the best grades and alignments, to a point on the State Highway through Alpine County.

26. A highway commencing at Mariposa, and extending thence northwesterly, on the best grades and alignments, to a point on the State Highway through Mariposa County.

27. A highway commencing at the City of Visalia and extending thence westerly, on the best grades and alignments, through the counties of Tulare and Kings, to the City of Hanford, in Kings County.

28. A highway commencing at a point on the State Highway through Alameda County, at or near Niles, and extending thence southerly, on the best grades and alignments, through Alameda and Santa Clara counties, to the City of San José; thence southwesterly, on the best grades and alignments, through the counties of Santa Clara and Santa Cruz, to a point on the State Highway through Santa Cruz County, near Watsonville.

29. A highway commencing at the City of Sonora, and extending thence easterly, on the best grades and alignments, through the counties of Tuolumne and Mono, to a point on the State Highway in the last-named county.

SEC. 3. The roads of the second class, or County Thoroughfares, shall be the most important roads in each county, as set apart and so declared by the Boards of Supervisors of the several counties, in discharging which duty they may call upon the Department of Highways, in writing, for such advice and counsel as said Boards of Supervisors may desire.

SEC. 4. The roads of the third class, or District Roads, shall embrace all existing county roads now recognized and set apart by law, and not enumerated in sections two and three of this Act as State Highways or County Thoroughfares, together with such additional roads as may be laid out, in accordance with the laws of the State of California, by the Boards of Supervisors of the several counties.

SEC. 5. All Acts or parts of Acts in conflict with the provisions of this Act are hereby repealed.

SEC. 6. This Act shall take effect from and after its passage.

II.

AN ACT TO PROVIDE FOR THE LOCATION AND MAINTENANCE OF HIGHWAYS OWNED OR TO BE ACQUIRED BY THE STATE OF CALIFORNIA BY THE LEVY OF A RATE OF TAXATION AND THE CREATION OF A FUND THEREFOR, AND DEFINING THE PURPOSE OF SAID FUND, AND THE DUTIES OF THE SEVERAL OFFICERS IN COLLECTING AND DISBURSING THE SAME.

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. There is hereby levied annually for each fiscal year, an ad valorem tax of one quarter ($\frac{1}{4}$) of a mill upon each and every one (1) dollar of value of the taxable property in the State; which tax shall be collected by the several officers charged with the collection of State taxes, in the same manner and at the same time as other State taxes are collected, upon all classes, or any class, of property. Said tax is for the location, construction, and maintenance of State highways; the support of the Department of Highways, or other matters pertaining thereto; all of which is for the benefit of the State of California.

SEC. 2. The State Board of Equalization, at the time when it annually determines the rate of taxes to be collected, must, at the same time, declare the levy of said rate of one quarter of a mill upon each one dollar of value of taxable property in the State, and notify the Auditor and Board of Supervisors of each and every county in the State thereof.

SEC. 3. The money collected from said rate of taxation, after deducting the proportionate share of expenses of collecting the same to which other State taxes are subject, must be paid into the State Treasury, and be by the State Treasurer converted into a separate fund, hereby created, to be called the State Highway Fund.

SEC. 4. The money paid into the State Highway Fund is hereby appropriated and made available without reference to fiscal years, for the purpose of locating, constructing, and maintaining State highways, and for the support of the Department of Highways; all of which embraces the payment for work done upon State highways in their location, construction, or maintenance; the acquiring by lease, or purchase, of rock quarries, gravelbeds, water, or other property for the construction or maintenance of State highways; for the purchase and planting of shade trees; the erection of mile-stones and guide-boards; the purchase of machinery, implements, and tools; the payment of the salaries and traveling expenses of the officers and employes of the Department of Highways, not otherwise provided for by law; the investigation of matters beneficial to the highways of the State, the dissemination of the knowledge so obtained, and the publication of any maps or diagrams in connection therewith; the payment for engineering instruments and material; office furnishings, fixtures, and convenience; expressage, postage, telegraphing, telephoning; or for any other property, real or personal; or for labor or service in the location, construction, or maintenance of State highways; or for the performance of the work of the Department of Highways.

SEC. 5. All claims against said State Highway Fund must be approved by the Highway Commissioner, and audited by the Board of Examiners, and payment shall be made out of said fund only upon warrants drawn against said State Highway Fund by the State Controller, in the name of the Highway Commissioner, and the State Treasurer is hereby authorized and directed to pay said warrants; and the Highway Commissioner is hereby authorized and directed to disburse the same.

SEC. 6. Whenever it shall become necessary to construct any part of the system of State highways, the estimated cost of which exceeds five hundred dollars (\$500.00), the Highway Commissioner must have plans, specifications, and estimates thereof, prepared in duplicate. One copy of said plans, specifications, and estimates shall be filed in the office of the Department of Highways, and one copy in the office of the County Clerk of the county, or County Clerks of the counties, in which the work is to be performed. The Highway Commissioner must advertise for bids therefor, for a period of two weeks, in at least two papers of general circulation, published, one at the point

most convenient to where the work is to be performed, and one at the State Capitol; said advertisement shall be in the following form:

STATE OF CALIFORNIA, DEPARTMENT OF HIGHWAYS.
Sacramento, Cal., ———, 19—.

Sealed bids will be received by the Department of Highways of the State of California, at its office in the State Capitol building, Sacramento, until ——— o'clock — M. of ———, ———, 19—, for ——— in ——— county, California. Plans and specifications for said work are on file in the office of the Department of Highways at Sacramento, and in the office of the County Clerk of ——— county, at ———, California, to which bidders are referred.

[SEAL:]

—————, Highway Commissioner.

—————, Secretary.

In no case shall the rate paid for said advertising exceed the established "county rate" for advertising, in the county in which the advertisement is to be done. It is hereby made the duty of the clerks of the various counties of the State, to receive from the Highway Commissioner the above-mentioned plans and specifications, and to place the same on file and preserve them as a record of their offices, and to permit their inspection during reasonable office hours.

SEC. 7. It is hereby made the duty of the Highway Commissioner to take charge of the location, construction, and maintenance of State highways, and to conduct the affairs of the Department of Highways; and to that end he shall have charge of the expenditure of the State Highway Fund, and all matters in connection therewith, under the provisions of law.

SEC. 8. Not more than five per cent (5%) of the annual levy for said State Highway Fund shall be expended for State highway construction, in any one county of the State, in any one year.

SEC. 9. All Acts, or parts of Acts, in conflict with the provisions of this Act, are hereby repealed.

SEC. 10. This Act shall take effect and be in force from and after its passage.

III.

AN ACT TO PROVIDE FOR THE CARE, MANAGEMENT, AND PROTECTION OF STATE HIGHWAYS.

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. If any State highway duly declared, laid out, or erected, is encroached upon by fences, buildings, or otherwise, the Highway Commissioner of California may require the removal of the encroachment. Notice must be given to the occupant or owner of the land or person causing or owning said encroachment, or must be left at his place of residence, if such be known to the Commissioner, or in case of a non-resident, then left with his agent if known, otherwise it must be posted on the encroachment. Said notice must specify the breadth of the State highway, the place and extent of the encroachment, and require him to remove the same within five days.

SEC. 2. If the encroachment is not removed, or commenced to be removed and diligently prosecuted prior to the expiration of the five days from the service or the posting of the notice, the one who caused, owns, or controls the encroachment forfeits ten dollars for each day the same continue unremoved. If the encroachment is such as to effectually obstruct and prevent the use of the road for vehicles, the State Highway Commissioner must forthwith remove the same.

SEC. 3. If the encroachment is denied, and the owner, occupant, or person controlling the matter or thing charged as being an encroachment refuses to remove or permit the removal thereof, the State Highway Commissioner must commence in the proper court an action to abate the same as a nuisance. If he recovers judgment, he may, in addition to having the same abated, recover ten dollars for every day such nuisance remained after such notice, and also his costs in his said action.

SEC. 4. If the encroachment is not denied, but is not removed for five days after the notice given as hereinbefore provided, the State Highway Commissioner may remove the same at the expense of the owner, occupant, or person controlling the same, and recover his costs and expenses, and also ten dollars for each day the same remains after said five days' notice, in an action for that purpose.

SEC. 5. Whoever obstructs or injures any State highway, or diverts any watercourse thereon, or drains water from his land on any highway, to the injury thereof, by means of ditches or dams, is liable to a penalty of ten dollars for each day such obstruction or injury remains, and must be punished as provided in section five hundred and eighty-eight of the Penal Code. Any person, persons, or corporation, who shall, by storing or distributing water for any purpose, permit the water to overflow, or saturate by seepage, any State highway, to the injury thereof, shall, upon notification of the State Highway Commissioner, discontinue and repair the damage occasioned by such overflow or seepage; and should such repair not forthwith be made by such person, persons, or corporation, said State Highway Commissioner shall make such repairs and if necessary divert the flow or seepage, and recover the expense thereof from such person, persons, or corporation, in an action at law. All persons excavating irrigation, mining, or draining ditches across State highways shall be required to bridge such ditches under the direction of the Commissioner, at such crossings, and upon neglect to do so, the State Highway Commissioner shall construct the same and recover the cost of constructing said bridge or bridges of such persons by action, as provided in this section; and whoever willfully injures any bridge on a State highway is hereby declared to be guilty of a misdemeanor, and is also liable for actual damages for such injury, to be recovered by the State in a civil action; *provided further*, that every person who knowingly allows the carcass of any dead animal (which animal belongs to him at the time of its death) to be put or remain within one hundred feet of any State highway, and every person who puts the carcass of any dead animal within one hundred feet of any State highway, or who shall deposit on any State highway any refuse, or waste tin, sheet iron, broken glass, or other refuse matter, is guilty of a misdemeanor.

SEC. 6. Whoever removes or injures any mile-board, or mile-stone, or guide-post, or any inscription thereon, erected on any State highway, is liable to a penalty of ten dollars for every such offense, and punishable as provided in section five hundred and ninety of the Penal Code.

SEC. 7. Any person may notify the occupant or owner of any land from which a tree or other obstruction has fallen upon any State highway to remove such tree or obstruction forthwith. If it is not so removed, the owner or the occupant is liable to a penalty of one dollar for every day thereafter until it is removed, and the cost of removal at the suit of the commissioner.

SEC. 8. Whoever cuts down a tree so that it falls into any State highway must forthwith remove the same, and is liable to a penalty of ten dollars for every day the same remains in such highway.

SEC. 9. Whoever digs up, cuts down, or otherwise maliciously injures or destroys any shade or ornamental trees on any State highway, unless the same is deemed an obstruction by the State Highway Commissioner, and removed under his direction, forfeits one hundred dollars for each such tree.

SEC. 10. All penalties or forfeitures and other recoveries given in this Act and not otherwise provided for, must be recovered by the State Highway Commissioner by suit in the name of the State, and paid into the State Treasury, and thereafter be used for the purpose of costs or expenses in future proceedings under this Act or for State road purposes.

SEC. 11. All Acts, or parts of Acts, in conflict with the provisions of this Act, are hereby repealed.

SEC. 12. This Act shall take effect and be in force from and after its passage.

IV.

AN ACT TO PLACE THE "LAKE TAHOE STATE WAGON ROAD" UNDER THE CARE, CONTROL, AND MANAGEMENT AND SUPERVISION OF THE DEPARTMENT OF HIGHWAYS OF THE STATE OF CALIFORNIA, TO PROVIDE FOR NECESSARY ALTERATIONS AND EXTENSIONS OF SAID ROAD, AND THE REPAIR AND CONSTRUCTION OF THE ROAD STRUCTURES THEREON, AND MAKING AN APPROPRIATION THEREFOR.

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. On and after the thirtieth day of June, A. D. nineteen hundred and three, the Department of Highways, State of California, shall have the care, control, management, and supervision of that certain wagon road belonging to the State of California, known as the "Lake Tahoe State Wagon Road," and situated in the county of El Dorado, in said State, commencing at the junction of the said road with the Placerville and Newtown road, a short distance easterly from the village of Smith's Flat, in said county of El Dorado, and running thence to a point on the east boundary line of said State at or near Lake Tahoe.

SEC. 2. It shall be the duty of the Department of Highways to keep said road, and the bridges and culverts thereon, open to travel at all times, except when prevented by the severity of the elements. It shall repair and rebuild said road, or any of the structures thereon, when in its judgment necessary and there are funds provided therefor. It may alter or change the route of said road, and may extend the westerly end of said road to junction with the city limits of Placerville; and the Department of Highways may and shall do all things necessary or proper to care for, manage, maintain, improve, protect, alter, or extend said road, together with its road structures, and in so doing said Department of Highways is authorized to appoint and employ all assistance, and to procure all material and property, real and personal, in its judgment necessary therefor.

SEC. 3. For the purpose of carrying out the provisions of this Act, and for the repair and reconstruction of defective road structures, and providing a sprinkling plant, where economic and necessary on said road, and for any necessary engineering expenses, the sum of twenty thousand dollars (\$20,000) is hereby appropriated out of any money in the State Treasury not otherwise appropriated, and the State Controller is hereby directed to draw his warrant from time to time, and in such sums as shall be due on claims presented and approved by the Department of Highways. Said warrant shall be made payable to the Highway Commissioner, and the State Treasurer is hereby directed to pay said warrant, and the Highway Commissioner shall disburse the same.

SEC. 4. All Acts, or parts of Acts, in conflict with the provisions of this Act, are hereby repealed.

SEC. 5. This Act shall take effect and be in force from and after June thirtieth, nineteen hundred and three.

Assuming office on the second day of April, 1901, there were found two appropriations pertaining to the work of this office. One was for the contingent expenses of the same for the fifty-third and fifty-fourth fiscal years, and the other was a part of the appropriation for the Tioga or Mono Lake Basin road.

Through this lack of funds to do scarcely any work several important road features were entirely neglected.

One of the main ideas was an object-lesson road, where a practical demonstration of road improvement could be seen and appreciated.

Could a few thousand dollars have been expended on such a road—say, on the Sacramento-Folsom highway, where material from Folsom was easily obtainable—the result now being reaped would prove the

wisdom of expenditures for such work, and the proper maintenance of a well-constructed road would also prove an excellent example to those retaining the old mistaken idea of repairs for maintenance.

Another road improvement—the use of oil on highways—has not yet been given a test by this Department, but from the experience in Southern California, and especially that of Mr. T. F. White, of Chino, Cal., in this use of oil, the result seems highly gratifying. It is to be hoped that the Department of Highways may be able to assist in gathering data of this important work.

So much has been written concerning the construction and maintenance of improved roads in general that it seems wholly unnecessary to deal with the subject here, outside of the work that has come under the supervision of the Department.

THE LAKE TAHOE ROAD.

In the year 1895 the toll road extending from the intersection of the Placerville and Newtown roads, El Dorado County, along the American River to the eastern boundary of the State, was duly declared a State highway by the Legislature, and in accordance with the provisions of the Act, a road commissioner was appointed to superintend the maintenance, changes, repairs, etc. During the period from 1895 to 1899, the ordinary repairs were made, but, so far as I have been able to learn, were not of a wholly permanent character. At the legislative session of 1899, there was appropriated the sum of \$25,000 for the improvement of the road or structures thereon, and to make a survey thereof. With this sum of money at the disposal of the Highway Commissioner, he began on September 27, 1900, a survey of the Lake Tahoe road, marking all crossings, topographical features, widths of road, and grades, and placed permanent monuments for future survey reference. After completing twenty-five miles of the total work of fifty-eight miles, inclement weather prevented further progress that year. For the purpose of marking the total survey, milestones cut of granite at Folsom, of the size 18 inches wide, 6 inches thick, and 54 inches long, and indicating the distance to Placerville, were delivered at Riverton, but not erected.

In addition to the foregoing survey, other work contemplated under the appropriation was undertaken, and accordingly on May 4, 1900, the Department contracted for an 81-foot span ashlar granite arch bridge, to cross the American River at a point on the road just above Riverton; and to replace an old and dangerous combination structure. The contract was for the bridge exclusive of approaches, which, when the work as stipulated was completed and accepted, left the structure in no condition for travel. In sinking the foundation for the east abutment

extra depth beyond that specified was required, which cost, with the original contract price and the cost of the survey of twenty-five miles of road, was equal to the appropriation.

Upon the present Commissioner assuming charge of the office of the Department, April 2, 1901, it was absolutely necessary for travel that the approaches to the new stone bridge be built, and consequently, through Marco Varozza, Lake Tahoe Wagon Road Commissioner, the spandrel filling and approaches were completed in July, 1901, under the direction of the Department of Highways. On the east end dry masonry walls of granite were built on either side, divergent to the axis of the structure, for a distance of 75 feet from the end of the abutment. Between these dry walls was a fill of 350 cubic yards of earth and rock. On the west end it was necessary to cut away the bank side which contained rock in place, earth, and "nigger heads," so that the proper curve could be had for entrance to the bridge. Divergent walls of 30-foot lengths were here built and the filling was obtained from the 200-yard cut in the bank. At the completion of this work, at an additional cost of \$550, the Tahoe road was equipped with a fine permanent structure.

When this work was ready for travel, attention was directed to the incomplete survey and unplaced milestones. After consideration it seemed unwise to allow the milestone stakes, as set for twenty-five miles, to become obliterated before the stones were placed and thus necessitate an additional expense later in ascertaining their location; and in consequence Mr. Marco Varozza was advised to set the first twenty-five stones. There now remain thirty-three miles of road to be surveyed and thirty-three milestones to be set. For this purpose I therefore recommend an appropriation of \$2,000, and that the same be expended under the direction of the Department of Highways.

In making an examination of this road it is noticeable that general decay has gotten the better of the maintenance fund. For instance, the dry masonry retaining walls built years ago are falling down, fills in the hollows have greatly settled, and the majority of small bridges and culverts have now become unserviceable. In a number of instances the foundation of a stone retaining wall was a pine log and the fill at the bottom consisted of brush and saplings, which are now decaying, causing the upper work to be of no value.

So much destruction coming on the roadbed and structures at once must be met by extra work, for the money available out of the maintenance fund of \$4,000 per annum for work beyond grading the road yearly and making the necessary repairs of bridges, culverts, and drains, is very small.

The stretch of road extending from the beginning near Smith's Flat twenty miles to Riverton is, during the summer months, deeply cut by

heavy teams, thus making a light reddish and disagreeable dust fully six inches in depth. In consequence of this, when the fall rains come, this piece of road very quickly becomes almost impassable and must receive a great amount of work to place it in condition for travel. If this part of the Tahoe road could receive proper sprinkling during three months of the summer it would effect a considerable saving in the maintenance expense.

For the construction of permanent work in culverts, bridges, walls, sprinkling plant, etc., it is recommended that an appropriation of \$18,000 be made, and the expenditure of the same be under the direction of the Department of Highways.

THE SONORA-MONO ROAD.

The Legislature, during the session of 1901, made the Sonora and Mono toll road, or that part of it extending from a point known as Long Barn, Tuolumne County, to the town of Bridgeport, in Mono County, a State highway, but made no appropriation for maintenance or improvement of the same.

Shortly after the present Commissioner had assumed charge of this Department, two petitions were received: one from the Board of Supervisors of Mono County, requesting appointment of a man to have charge of the road, and the other from citizens of Tuolumne County, with a similar request; but, owing to the fact that no funds had been set aside for such work, no action was taken, and the road had to remain without repairs until the Legislature could make the necessary appropriation for such work.

In July, 1901, I traversed this road so that I might familiarize myself with the need of repair and with the general condition of the roadbed.

For the purpose of getting a clearer idea of the nature of the different soils traversed by the road, and the maintenance of the same, the total length is divided into seven sections, as follows:

Section 1, from Bridgeport to Junction.

Section 2, from Junction to foot of ascent in Leavitt Valley.

Section 3, from Leavitt Valley to the Summit.

Section 4, from the Summit to Baker's station.

Section 5, from Baker's station to beginning of ascent from Stanislaus River.

Section 6, from beginning of ascent to Summit near Niagara Creek.

Section 7, from near Niagara Creek to Long Barn.

Section 1. The road from Bridgeport, Mono County, to the junction where the Sonora road leaves the Antelope Valley road, is built almost entirely in soil with scarcely any rock, which can be easily handled or worked with plow and grader. Except perhaps four or five places, the

grade does not exceed seven per cent, and at the points where the steep pitches do occur a change in the line of road will greatly reduce them. The first two and one half miles from Bridgeport is over a flat meadow, with scarcely enough crown to keep the water from running across it. This distance will require good drainage and a heavy crown to make it conform to the average of the remaining distance. In the seventeen miles of road of this section there should be thirty good substantial stone culverts built and a good grade established. The amount of travel over this section, which is but a part of the main road from Mono County through Antelope Valley to Carson Valley, demands that it receive immediate attention.

Section 2. From the Junction the road extends southwesterly over meadow lands and soil on side hills and along the west Walker River, a distance of six miles to the foot of the ascent in Leavitt Valley. The elevation of this point is 7,150 feet above mean sea-level.

Section 3. From the foot of the grade the road extends southwesterly three and one half miles along Leavitt Creek; thence northwesterly along a branch of Leavitt Creek three and one half miles to the summit of the Sierra Nevada Mountains at Sonora Pass, and at the corner common to Alpine, Tuolumne, and Mono counties. In this distance of seven miles the rise is from 7,150 feet to 9,642 feet, or 2,492 feet. This entire length is either over granite boulders or solid granite, and the grade in places averages twelve and one half per cent for a mile of distance, with numerous pitches of eighteen or twenty per cent. Here it is easily shown that any attempt to change or reduce the grade on this granite formation would result in a large expense far exceeding the benefits to be derived.

Section 4 extends westerly in a general course along the county boundary line between Alpine and Tuolumne counties, and near Deadman's Creek to Baker's station, on the Middle Fork of the Stanislaus River. This portion of the road descends from an elevation of 9,642 feet at the summit to 6,265 feet at Baker's station in a distance of ten miles, and traverses a rough country of granite formation, which is very similar to section 3 in both grade and character of rock.

Section 5 begins at Baker's station, and following the middle fork of the Stanislaus River in a northwesterly direction, descends to an elevation of 5,600 feet at the foot of an ascent. This section of seven miles in length is along flat river bottom ground, and for four miles follows the county boundary line between Alpine and Tuolumne counties, then crossing the Stanislaus River by bridge, continues to follow the river to the beginning of the ascent.

Section 6 begins to ascend in a southwesterly direction to the summit near Niagara Creek at an elevation of 6,638 feet. This part of the road, consisting of five miles, is over granite boulders and contains some steep pitches.



PATTERSON GRADE, SONORA AND MONO TOLL ROAD—1897.
(Showing general character of ground traversed.)

Section 7. From the summit near Niagara Creek the road now descends in a southwesterly direction, crosses the south fork of the Stanislaus River, and continues down Sugar Pine Creek to Long Barn, a distance of twenty-seven miles. This course is through pine timber, and with the exception of a few places has fairly good ground for a roadbed.

The sixty-one miles of this road from Long Barn to the Junction was in July, 1901, in a very bad state of repair; the twenty-two miles over the granite formation was nothing more than a creek bed, while all the bridges on the route were either in a rotten condition or else fallen down. In summing up the small stream crossings on this part, there were twenty-five bridges or places in need of them, besides the bridge over the middle fork of the Stanislaus River and the one over Eagle Creek, both large structures, which must be rebuilt. This work done in a permanent form, with the building of culverts and restoring the roadbed, would require a large sum of money; and furthermore, the fact that a large part of the alignment and grade of the road was very poorly laid out seems to warrant the expenditure of a sum large enough to place the road and structures in good repair and as the use of the road requires, then gradually build permanent structures. On the other seventeen miles of road there should be enough money appropriated to make it permanent and substantial.

In view of the foregoing examination it is recommended that \$20,000 be appropriated for the construction of bridges, culverts, and grading, and also that a maintenance fund of \$5,000 per annum be established for the support of the whole seventy-eight miles of road.

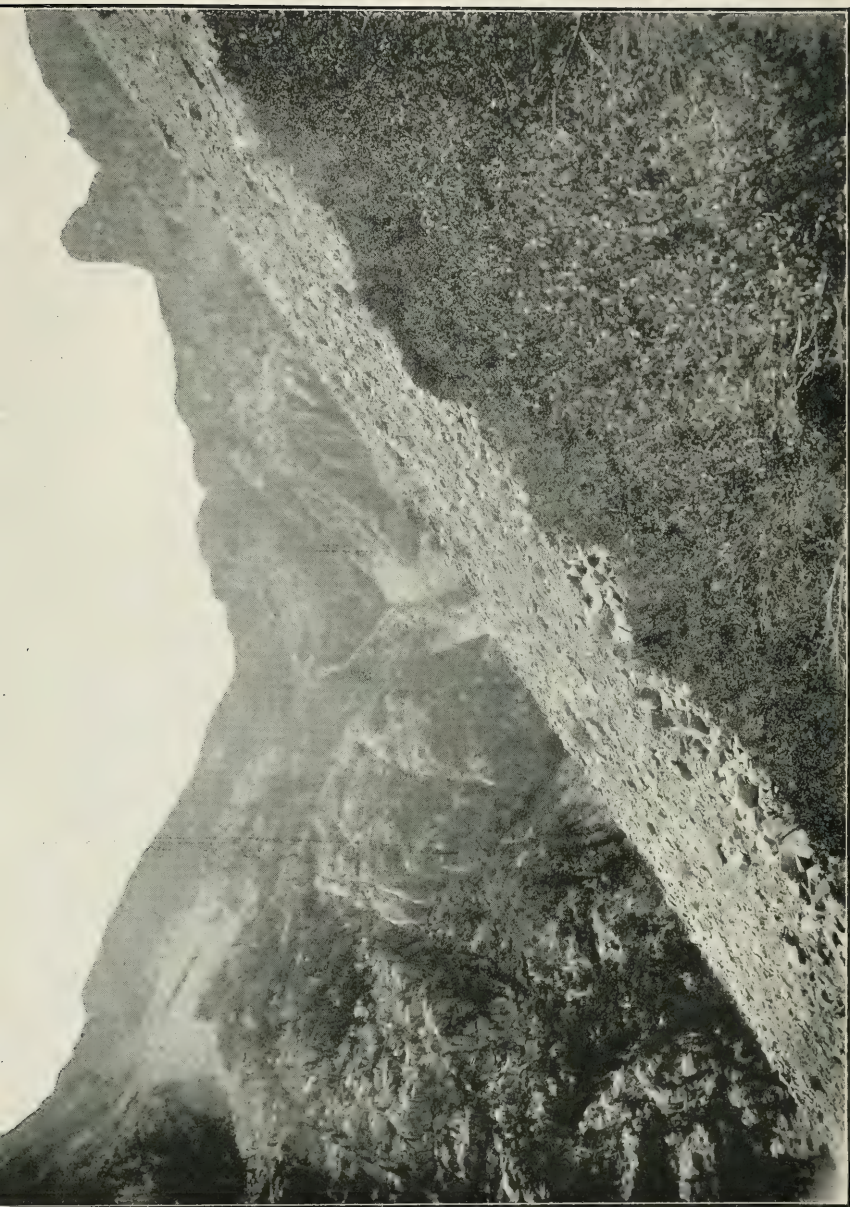
MONO LAKE BASIN OR TIOGA ROAD.

The people of Mono, Inyo, and Alpine counties have for a number of years past been most diligent in advocating the construction of a road through the Sierra Nevada Mountains to join the eastern extremity of the Tioga road. Repeated efforts finally brought about some preliminary examinations of the routes in the vicinity of the proposed road, and in 1896, 1897, and 1898 Commissioners Manson, Price, and Ashe, of this Department, made such examinations and gathered data of relative feasibility. In their report of the Department for 1898, of the passes examined they recommended the selection of the Leevining Creek route, and an appropriation for the construction of a State highway from Tioga to connect with the traveled road in Mono County.

In the following year (1899) Mr. J. L. Maude, the Commissioner of the Department of Highways, was appointed one of the three members on the Government commission by the Secretary of War to examine and report on the Yosemite National Park roads. Among the roads and

routes inspected were the three possible passes for the Tioga road extension in the Sierra Nevadas, namely: Mill Creek Cañon, Leevining Creek Cañon, and Bloody Cañon. The report thereon has this to say: "There are many points in favor of the Leevining route, notably it is but 10,000 feet in elevation at its highest point, as against an elevation of 10,600 feet at Mono Pass on the Bloody Cañon route, and 10,700 feet between Saddlebag Lake and the head of Mill Creek Cañon, reached in the last-named route. This route also presents the least engineering difficulties, and here a roadway can be constructed for a less amount of money than by way of either of the other routes. It is the middle route between Mill Creek on the north and Bloody Cañon on the south. It also gives a much shorter line of communication between the Mono Lake Basin and its tributary territories on the east and the Great Central Valley of California on the west than the Mill Creek route, and fully as short as the Bloody Cañon route. It can also be kept free from snow for a longer portion of the year than either of the other routes."

Under an Act of the Legislature approved February 23, 1899, there was an appropriation of \$25,000 for the construction of a free wagon road connecting Mono County roads with the Tioga road at or near its eastern extremity. The Act also provided that the Department of Highways should begin location and construction work as soon as the funds appropriated were available, and prosecute the same with diligence. Thus, during the summer of 1900, Commissioner Maude sent a surveying party into the field for the purpose of definitely locating the line of road. After selecting the Bloody Cañon route they proceeded to the survey thereof, which ended about September 1, 1900. The next year (1901) the present Commissioner, having taken the place of Mr. J. L. Maude, was impressed by the Mono County citizens with the importance of continuing the work left unfinished, and in compliance with a request from them visited Mono County during July, 1901, and personally made an examination of the Bloody Cañon survey, and also carefully inspected the Leevining Creek Cañon, Mill Creek Cañon, and Lake Cañon routes. With the compilation of the Bloody Cañon survey, the Government report, and the report of the former Commissioners of this Department in mind, and after a careful study of them and a consideration due the advocates of the different routes, I concluded that Leevining Creek was by far the superior and cheaper locality for a road, and decided to abandon the Bloody Cañon project, and survey Leevining Creek Cañon. The next month, or August, 1901, I personally organized a surveying party, consisting of Mr. Furley, level-man; a rod-man, two chain-men, an ax-man, a cook, and myself as transit-man. We proceeded to Leevining Creek Cañon by rail to Chinese Camp, and then by team over the Tioga road to the head of Leevining Creek, where work was commenced. On September 25th we had completed the work of



SHOWING LEEVING CREEK CAÑON NEAR FALLS—ROAD SURVEY AT RIGHT SIDE OF CREEK.
(On the 5.05 miles yet to be built.)

survey. When the office work was finished it then became certain that the Leevining Creek route was greatly superior to any other pass; and in substantiation of the selection the following table of comparison will easily show the advantages of such route:

Bloody Cañon Route. (Surveyed by Maude.)

Length, in Miles.	Maximum Grade.	Cut—Cubic Yards.	Fill—Cubic Yards.	Elevation to be Overcome.
16	24% non-uniform.	91,176 earth. 29,244 rock.	69,664 earth. 19,295 rock.	10,600 feet.

Leevining Creek Route. (Surveyed by Ellery.)

Length, in Miles.	Maximum Grade.	Cut—Cubic Yards.	Fill—Cubic Yards.	Elevation to be Overcome.
9.25	7% uniform.	34,158 earth. 19,840 rock.	9,141 rock. 26,850 earth.	9,700 feet.

Mill Creek Route. (Estimated.)

Length, in Miles.	Maximum Grade.	Cut—Cubic Yards.	Fill—Cubic Yards.	Elevation to be Overcome.
12.5	10% non-uniform.	-----	-----	10,400 feet.

Lake Cañon Route.

Length, in Miles.	Maximum Grade.	Cut—Cubic Yards.	Fill—Cubic Yards.	Elevation to be Overcome.
15	12% non-uniform.	-----	-----	10,700 } Two 10,450 } Mts.

Found less snow in Leevining Cañon in July, 1901, than in any of the other three routes. It is the only one of the three routes that is entirely without the Yosemite National Park. Another strong point favorable to this route is the easily blown creviced granite as against solid granite and porphyry in Bloody Cañon.

In June, 1902, it was decided to construct 4 miles, 1,010 feet of this road as per plans, cross-sections, profile, and specifications filed in the office of the Department. After the estimate of the cost of this section, amounting to \$11,965, there remained one matter that needed settlement before the beginning of work—the necessary rights of way.

With the exception of two pieces of land, the line of the road was over Government land and therefore subject to the rights of eminent domain. When private property was crossed, in the north half of the south half of section 24, owned by Mr. A. McNabb, and in the southwest quarter of the northwest quarter of section 24, and the southeast quarter of the northeast quarter of section 23, all in T. 1 N., R. 25 E., M. D. M., the homestead entry of F. M. Chipman, it became necessary to obtain their consent. In the first instance, Mr. A. McNabb gave a right-of-way deed for a strip of land 80 feet in width along the center line of the road, but Mr. F. M. Chipman demanded a settlement for his certain rights in his homestead entry. A committee appointed by the Board

of Supervisors of Mono County, and consisting of Mr. A. Travis and Mr. Thomas Silvester, offered him compliance with his first demands, which he refused and sought an unreasonable sum, which was entirely ignored.

After due publication in two Sacramento daily newspapers and in a Mono County paper, asking for sealed proposals on June 30, 1902, for the construction of a part of the Tioga road, but one bid was received, and this from Mr. James Touhey, of Sacramento, in the sum of \$14,000. He having fulfilled all the obligations imposed, his bid was taken under advisement, and on July 23, 1902, a contract was made by the State, through this office, with him to do the work as outlined in the specifications, plans, etc., for the sum of \$14,000. On August 2, 1902, he had a crew of men on the ground engaged in the work, and the Highway Commissioner made camp in the cañon to personally superintend the work. On November 10, 1902, especially through the inability to obtain labor and also on account of the snowstorms, Mr. Touhey was compelled to withdraw from the work and await the melting of the next spring's snow before work can be resumed. A stipulation in the contract provided for an extension of time for said work, provided he was deterred on account of labor or stress of weather. This has been granted until the spring of 1903.

During the time of work from August 2, 1902, to November 10, 1902, there were $3\frac{1}{2}$ miles nearly completed.

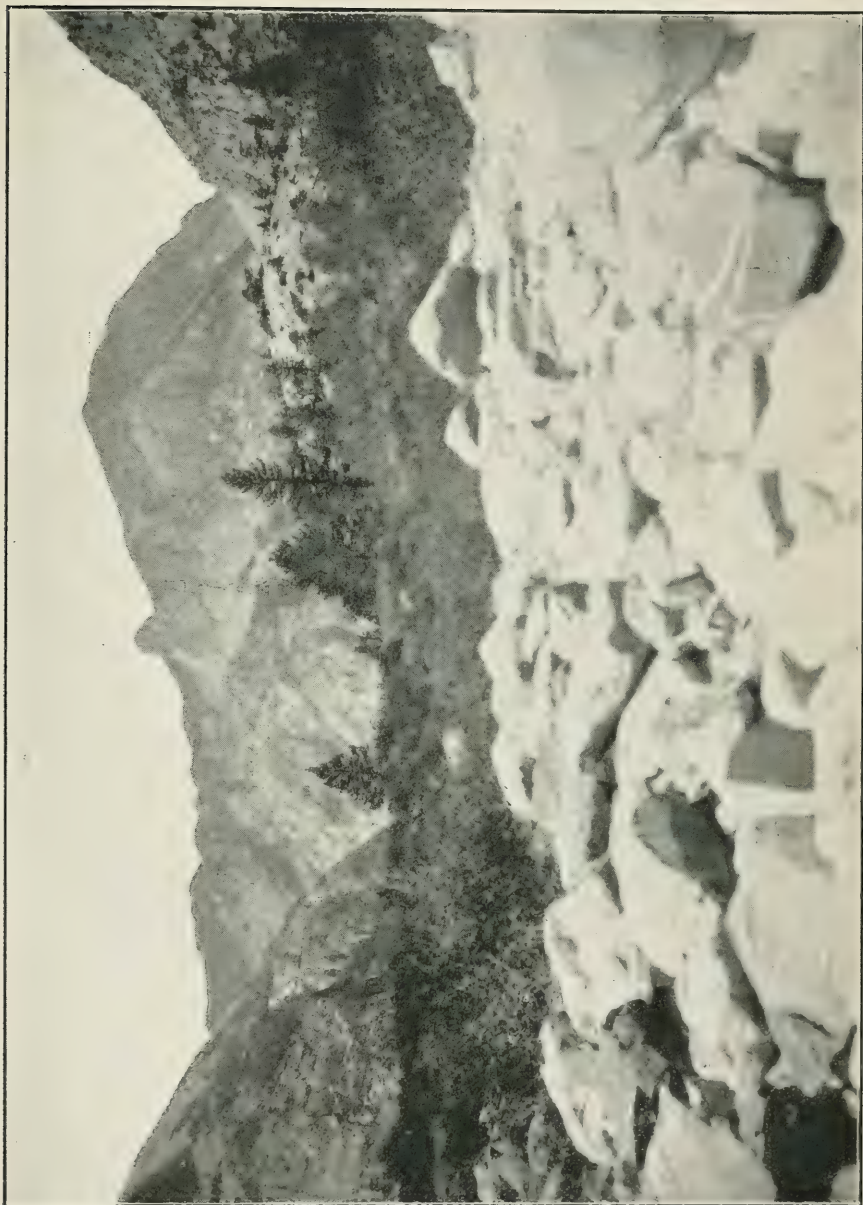
This road is essentially a mountain highway passing through the heart of the Sierra Mountains, with a maximum grade of seven per cent and a roadbed 12 feet in width, with turnouts 18 feet wide at all needed points. From station 355 to station 296 the road will have a uniform grade of two per cent; then from station 296 to station 128 the grade will be seven per cent uniform. All culverts were built of stone, and the bridge at station 203+25, excluded from the contract of Mr. James Touhey, will have dry rubble masonry abutments and timber superstructure. The tamarack timber for this work is already hewn and on the ground. Specifications for the part of road under contract are given in detail in the Appendix.

The part of the road as now contracted for and almost completed leads up Leevining Cañon to station 133+70 of the survey and into a rough country east of Mount Tioga. Therefore, before travel can begin on this route it is necessary that the remaining 5.05 miles of roadway be constructed. Below is given the estimated cost of this 5.05 miles and also a list of the disbursements under the appropriation of \$25,000 in 1899. The estimated cost of the last 5.05 miles on the Tioga Road extension, according to the plans, profiles, and cross-sections on file in this Department, is \$25,000.



LEEIVING CREEK FALLS—ROAD SURVEY AT RIGHT SIDE.

(On the 5.05 miles yet to be built.)



MOUNT TIOGA—ROAD SURVEY AROUND LEFT SIDE.
(On the 5.05 miles yet to be constructed.)

DISBURSEMENTS TO NOVEMBER 3, 1902.

1899.	Amount appropriated by the Legislature	\$25,000 00
1900.	Survey of Bloody Cañon route by J. L. Maude	\$7,454 00
1901.	Trip of inspection of routes, Mono County, by N. Ellery....	176 85
	Survey of Leevining Creek Cañon, by N. Ellery	1,907 32
	Repairing surveying instruments	15 65
1902.	Trip to Leevining Creek Cañon.. ..	144 45
	Contract for $4\frac{1}{4}$ miles construction. (Four payments made) ..	8,000 00
	To be paid on contract.....	6,000 00
		<hr/> 23,698 27
	Amount on hand.....	<hr/> \$1,301 73

From this balance must yet be deducted the expenses of inspection of contract work and the construction of the bridge at station 204+3 of the survey. It is therefore recommended that an appropriation of \$25,000 be made for the completion of the Tioga Road extension.

REPORT OF LAKE TAHOE STATE WAGON ROAD COMMISSIONER.

MARCO VAROZZA, COMMISSIONER.

PLACERVILLE, CAL., October 30, 1902.

To his Excellency HENRY T. GAGE, Governor of the State of California:

SIR: I have the honor to submit the following report of the Lake Tahoe Wagon Road, originally established under the provisions of an Act of the Legislature of the State of California, approved April 1, 1897 (Chapter CCXLV, Statutes of 1897), and which said Act was amended by an Act approved March 28, 1899.

The Lake Tahoe Wagon Road, which is entirely situated in El Dorado County, commencing at the junction of the Newtown and Placerville roads, a short distance easterly from Smith's Flat, has its terminus at a point on the east boundary line of the State of California, at or near Lake Tahoe, traversing about fifty-eight miles of mountainous country. Owing to the character of the country traversed, a great amount of repair work was found to be necessary to keep the road open to travel, and it has been the intention of your Commissioner to make all improvements as lasting as possible.

The Legislature of the State, at the regular session in 1901, appropriated the sum of \$9,200 for the salary of the Commissioner and maintenance of the highway for the two years beginning July 1, 1901.

By exercising the strictest of economy, the appropriation is sufficient to keep the road in repair until the end of the fiscal year, and as a result of the expenditures so far made, I have been able to keep the road in good shape, while in addition I have constructed four new bridges, twenty-seven stone culverts, and repaired a number of retaining walls.

I was also compelled to expend nearly \$500 of this appropriation in order to complete the stone bridge at Riverton.

Some of the present structures in the shape of bridges are very old, and I earnestly solicit the consideration of the proper authorities to the necessity of granting a somewhat larger appropriation at the next

session of the Legislature for the purpose of improvement along the line indicated.

All vouchers for the expenditures made from this appropriation are on file in the State Controller's office.

In closing this report, I desire to extend to your office thanks for the kindly interest manifested in relation to the road, and I also wish to extend my thanks to Hon. N. Ellery, Commissioner of Highways, for his ready assistance in all matters to which I have solicited his attention for the betterment of the highway.

Respectfully submitted.

MARCO VAROZZA,
Commissioner.

APPENDIX A.

**SPECIFICATIONS FOR THE CONSTRUCTION OF A PORTION
OF A STATE HIGHWAY IN LEEVINING CREEK CANON,
MONO COUNTY, CALIFORNIA.**

Location.—The proposed work shall be in Leevining Creek Cañon, Mono County, California, and particularly from station No. 133+370 to station No. 355 of a road survey of said cañon made in 1901, by N. Ellery, and being in sections 14, 15, 23, and 24 of township 1 north, range 25 east, M.D.M. This work covers but a part of a whole survey for a connecting highway between an existing Mono County road and the Tioga Road.

Line of Road.—The center line of the roadbed must conform accurately to the center line as staked out or indicated on the ground; *provided, however*, that whenever the cross-sections for this work shall show deviation from the center line, then the cross-section shall prevail. But the contractor shall make such changes from these lines as the engineer may require.

Length of Road.—The length of the particular piece of survey of road included under these specifications is four (4) miles one thousand and ten (1,010) feet.

Grubbing and Clearing.—The clearing must extend six (6) feet on each side of the given center line of road, except where the engineer may direct the brush be retained as a protection to the roadbed. Over the foregoing portion of the right of way all trees and brush must be removed to the satisfaction of the engineer, and the roadway proper must be so grubbed that no roots or other obstructions shall be within a foot of the road surface. All brush or trees so removed must be cast aside or concealed so as to present a clean appearance from the road. No branch or limb of any tree remaining in the right of way shall overhang the roadway nearer than fifteen (15) feet above the roadbed.

Grade.—The grade lines on the accompanying profile give the true grade, and must correspond to the finished roadway.

Cross-Sections.—The cross-sections shall be as given in the accompanying cross-section drawing, and in no way shall they deviate from said drawing except by express permission of the engineer. Should the

material in the side slopes be different than surface indications show, then the engineer may permit or require a change from the drawing.

Roadbed.—The roadbed must present an even surface of twelve (12) feet in width, as shown by the cross-section drawing. No crown for the center line is required, as the ground is sandy. All obstructions must be removed at least one (1) foot below the surface of the roadbed, except where solid rock is encountered; then shall the engineer determine the surface.

Turnouts.—All turnouts given either in field notes or in drawings shall be eighteen (18) feet in width and fifty (50) feet in length. There shall be an even surface, as shown per cross-section drawing. The location of turnouts is shown on the cross-section drawing or in field notes.

Ditching.—No ditches are shown on accompanying plans, but when the ground will permit, they shall be made at the sole discretion of the engineer. When made on the upper hillside of road, there shall be no increase in width of roadbed.

Switchbacks.—The switchbacks shown on the accompanying map must be made of the widths shown on the cross-section drawing; but should conditions arise whereby the ground would necessitate an extra width, the contractor shall comply with the engineer's requirements in the matter.

Borrow Pits.—No borrow pits shall be opened without the knowledge and consent of the engineer in charge, who shall particularly avoid damage to the roadbed or its slopes by such action.

Fills.—All fills, except rock, shall be fifteen (15) per cent above grade, thus allowing for shrinkage and settling.

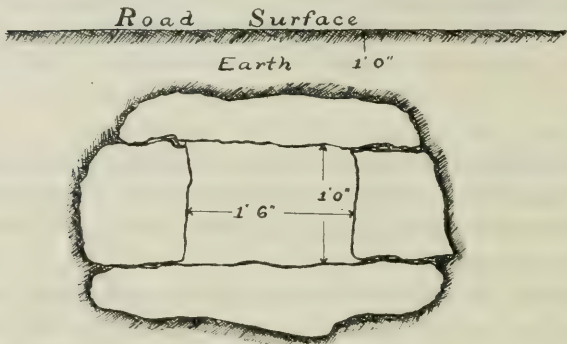
Side Slopes.—All slopes shall be according to the cross-section drawing.

Bridge.—The bridge to be built between stations 203+25 and 204+3 of the survey is excluded from the work under these specifications. However, the grading between said stations shall be as shown per profile.

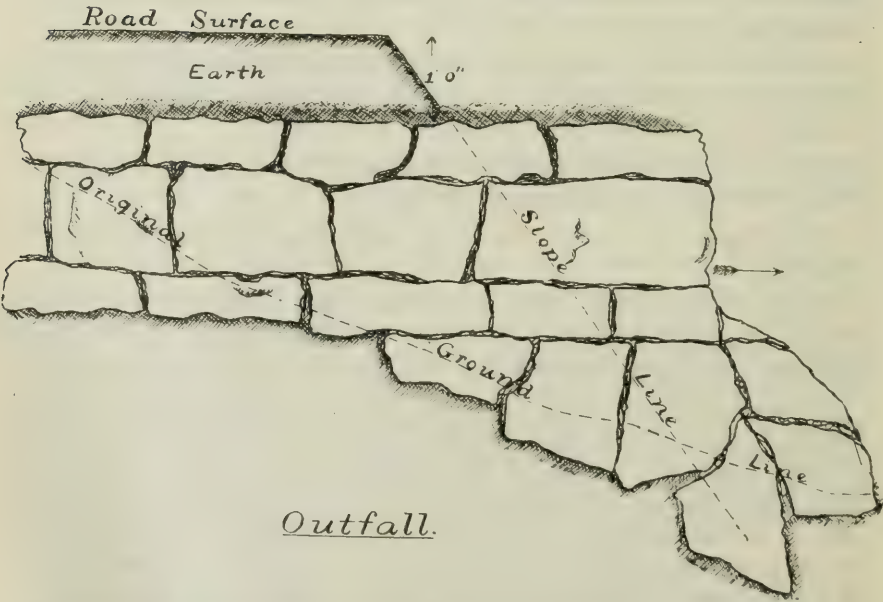
Culverts.—Culverts shall be placed at the points indicated on the drawings, and shall be built of stone. Their cover shall be at least one (1) foot below the surface of the roadbed. The stone work shall be dry rubble masonry, and shall be built up in a workmanlike manner, and to the satisfaction of the engineer. Should, upon the cutting of the ground, some point be exposed where it necessitates, in the opinion of the engineer, additional culverts, they shall be built by the contractor, and shall be paid extra for upon the estimate of the engineer. Whenever a culvert is built in a fill, then it shall be laid on the original ground surface as near as consistent with the fall. The outfall of the culverts shall be rocked up in extension beyond the road slope line, so

that the flow will not damage or undermine the roadway. The intake of the culverts shall be rocked to relieve the ground of all wash. For the general character of culvert with respect to size, roadway, original ground line and surface, see accompanying sketch. The fall shall be one (1) foot per length of culvert.

Culvert.



Cross-section.



Outfall.

Retaining Walls.—Retaining walls shown on the cross-section drawing are to be built of dry rubble masonry, and of a good, firm foundation. The batter shall be one (1) horizontal to four (4) vertical. They shall extend between consecutive stations where shown, and terminate

at the point indicated by the engineer in charge, when not of consecutive stations on the survey.

Removal of Survey Stakes.—The survey stakes shall be removed only when the engineer in charge has located the same by monuments, or, where not to be located by such, has given permission for the removal of same. He shall, however, make little or no delay in this matter for the contractor.

GENERAL CONDITIONS.

Drawings.—The profile and cross-section drawings, map of road, and field notes of survey, are hereby made a part of these specifications.

Plans for Contractor.—The contractor will be furnished with a set of the drawings and specifications. No deviation from the drawings will be allowed without the permission of the engineer.

Examination of Work.—The contractor must furnish all facilities to the engineer to examine and determine whether the contract is carried out as specified.

Contractor's Duty.—The contractor must abide by and comply with the obvious intent and meaning of these specifications, which shall be construed to include all materials and modes of work necessary to complete the work herein specified in a thorough and workmanlike manner.

Errors or Omissions.—The contractor will not be allowed to take any advantage of any error or omission in these specifications, as full instruction will be given him should any error or omission be discovered.

Disputes, etc.—All work must be done under the general supervision and to the satisfaction of the State Highway Commissioner; and all questions and disputes with regard to the intent and interpretation of these specifications shall be referred to him, and his decision thereon shall be final.

Non-compliance with Specifications.—Should any portion or portions of the work be done not in accordance with these specifications or without the approval of the State Highway Commissioner, the contractor shall, at his own expense, rebuild such portion or portions; or the State Highway Commissioner may cause such work to be properly done, and deduct the cost of the same from the amount due the contractor.

Disorderly Employés.—If any person employed by the contractor on this work shall appear to be incompetent or disorderly he shall be discharged immediately on the requisition of the engineer; and such person shall not again be employed on the work.

Non-responsibility of State.—The Highway Commissioner and the State shall not be responsible or accountable for any loss or damage

that may happen to the said work or any part or parts thereof, or to any of the materials, or for injuries or loss of life to persons in the employ of the contractor or public.

Non-liability of State.—All bills incurred by the contractor for the employment of labor, purchase of material, or any other matter in connection with the work provided for in these specifications, must be paid by said contractor, and the State of California is hereby expressly relieved from any indebtedness or claim due to any person other than the contractor for any amount of money over and above the contract price.

Time of Work.—The whole work must be completed within eighty (80) days after the award of the contract.

Time of Beginning Work.—The bidder to whom the contract for this work is awarded shall immediately begin the work herein specified, and prosecute the same diligently to its completion.

Wage Rate and Hours per Day.—In pursuance with the laws of California, the contract will contain stipulation that eight (8) hours shall constitute a day's labor in all work done thereunder, and the wage rate shall not be less than two (2) dollars per day. No person not a citizen of the State of California shall be given employment on said work.

Penalty for Over-time.—The contractor will be required to pay to the State of California ten (10) dollars per day for each and every day that the completion of this work may be delayed beyond the prescribed time.

Definition.—The word "engineer" herein used means the State Highway Commissioner of California or his authorized agent.

INSTRUCTIONS TO BIDDERS.

Rejection of Bids.—The Highway Commissioner reserves the right to reject any and all bids, and to waive any informality in any bid received.

Address for Bids.—All bids shall be addressed to the State Highway Commissioner, Room 72, Capitol Building, Sacramento, California.

Bid, etc.—One copy of the advertisement, the guarantee, and the specifications must be securely attached to each bid, and considered as comprising a part of it.

Check for Cash Bond.—Each bid must be accompanied by a certified check in the sum of one thousand (1,000) dollars, payable to the order of N. Ellery, State Highway Commissioner, and drawn on some established bank doing business in the State of California. Before awarding the contract, all of said checks deposited by the unsuccessful bidders shall be returned to them by the said N. Ellery. The check deposited by the successful bidder shall be retained by N. Ellery, State Highway Commissioner, until twenty (20) days after the completion of the work,

provided for in these plans and specification, and its acceptance by the State Highway Commissioner. Said certified check shall be a cash bond for the faithful performance of the work under the contract, and in case of the violation of the plans and specifications said bond shall be forfeited by said contractor to the State of California, or such part of it as is deemed necessary to insure the State of California against loss.

Form of Bid.—All bids shall be upon forms supplied by the office of the Department of Highways.

Time to Make Contract.—The bidder to whom the contract under these specifications shall be awarded, shall, within five (5) days after notice of such award be given, sign a contract with the State of California for the execution of the work under the terms of the specifications. Failure to do so within said limit of time shall cost forfeiture of the certified check deposited with the bid to the State of California.

Bid for Whole Work.—Each bidder must state in his proposal a specific sum for which he will construct the work herein described and as required by these specifications.

Data for Bid.—Data for the calculation of bids can be found on the last page of these specifications; and further, it is presumed that the bidder will visit the place of work, that he may estimate the facilities and difficulties attending the execution of the contemplated work.

ACCEPTANCE AND PAYMENT.

Acceptance.—The work will not be accepted until the whole shall have been completed to the satisfaction of the State Highway Commissioner and in accordance with the specifications.

Partial Payment.—Every twenty (20) days a written estimate of the value of the work performed shall be made, and claims for seventy-five (75) per cent of such estimate will, through the proper course, be paid from the Mono Lake Basin Road Fund. The estimate shall be made by the engineer and the claims drawn by the order of the State Highway Commissioner.

Final Payment.—When the work is completed and accepted by the State Highway Commissioner, final payment will be made in the same manner.

DATA FOR CALCULATION OF BIDS.

	Cut—Cu. Yds.	Fill—Cu. Yds.
Sandy	12,373.34	9,152.50
Gravelly	799.81	162.49
Rocks and earth mixed	5,294.60	2,919.73
Broken rock	1,238.89	2,553.13
Large boulders	55.13	418.41
Solid rock	195.17	622.12
Total	19,956.94	15,828.38

Fill mostly on lower side of road, directly opposite.

The number of culverts is fourteen (14).

A general idea of the trees, brush, etc., can be found in the field notes of the survey.

GROUND OVER WHICH ROAD IS TO BE BUILT.

Station 133+70 to Station 355, as per survey.

Feet.	
330.	Earth with rock imbedded.
250.	Rocks and broken rock.
200.	Gravelly ground.
1,750.	Earth with rock imbedded.
200.	Broken rock.
200.	Earth with rock imbedded.
800.	Broken rock.
500.	Earth with rock imbedded.
200.	Broken rock.
100.	Springy earth.
535.	Earth with rock imbedded.
45.	Solid rock.
85.	Earth with rock imbedded.
271.	Solid rock.
35.	Granite boulders.
1,572.	Sandy with rock imbedded.
30.	Solid rock.
5,427.	Sandy with rock imbedded.
110.	Large boulders.
410.	Sandy with rock imbedded.
138.	Broken rock.
570.	Sandy with rock imbedded.
210.	Broken rock.
2,962.	Sandy with rock imbedded.
500.	Gravelly ground.
335.	Earth with some rock.
810.	Broken rock.
455.	Sandy with some rock imbedded.
300.	Broken rock.
2,800.	Sandy, few rocks.

Total, 22,130 feet, or 4 miles, 1,010 feet.

APPENDIX B.

EXPENDITURES OF DEPARTMENT UP TO AND INCLUDING
OCTOBER, 1902.

1901.			1901.		
April 2—	J. O. Coleman.....	\$5 00	Oct. 7—	Sunset Telephone Co.....	\$5 50
	H. J. Furley.....	7 00		Wells, Fargo & Co.	14
	J. O. Coleman.....	5 00		Sunset Telephone Co.....	13 25
	Wells, Fargo & Co.	1 56		J. O. Coleman.....	2 00
	Whisky Hill Wells.....	4 50		Charles Prince.....	4 50
	W. K. Cothrin.....	9 00		Kane & Trainor Ice Co....	7 60
	Charles Prince.....	30 00		Whisky Hill Water Co....	4 50
	Sunset Telephone Co.....	8 05		Sunset Telephone Co.....	5 50
	Charles Prince.....	4 50	Nov. 11—	J. O. Coleman.....	5 00
May 2—	Charles Prince.....	30 00		N. Ellery.....	6 60
	Sunset Telephone Co....	6 15		Larkin Brothers.....	2 50
May 20—	N. Ellery.....	2 20		Kane & Trainor Ice Co....	2 70
	C. W. Vickrey.....	2 20		Sunset Telephone Co.....	6 15
	W. T. Watson.....	1 50	1902.		
	Frances Frey.....	13 00	Jan. 2—	Sunset Telephone Co.....	5 75
	D. H. Holdridge.....	9 00		Charles Prince.....	4 50
	Larkin Brothers.....	5 00		Whisky Hill Water Co....	4 50
	N. Ellery.....	2 20		Sunset Telephone Co.....	5 50
	C. W. Vickrey.....	2 20	Feb. 15—	J. O. Coleman.....	5 00
June 3—	Charles Prince.....	30 00		Sacramento Directory Co.	4 00
	Sunset Telephone Co....	6 00		H. S. Crocker Co.....	50
July 6—	J. O. Coleman.....	5 00		Ing & Allee.....	2 75
	A. Leitz Co.....	25		Sunset Telephone Co.....	5 50
	Kimball & Upson.....	1 00		Sanborn, Vail & Co.....	2 40
	Magistrini & Germeshau-			N. Ellery.....	7 50
	sen.....	50	Mar. 14—	Sunset Telephone Co.....	5 50
	Larkin Brothers.....	2 50		J. O. Coleman.....	5 00
	J. T. Amerau.....	1 50	April 5—	Wells, Fargo & Co.	75
	Ing & Allee.....	7 55		Larkin Brothers.....	1 50
	Frances Frey.....	20 00		Whisky Hill Water Co....	4 50
	N. Ellery.....	5 45		Charles Prince.....	4 50
	H. S. Crocker Co.....	2 50		Sunset Telephone Co....	6 10
	J. O. Coleman.....	5 00		N. Ellery.....	7 50
	Kane & Trainor Ice Co....	5 40	May 6—	Sunset Telephone Co.....	6 10
	Larkin Brothers.....	1 25		J. O. Coleman.....	5 00
	Marks & Woodworth.....	1 50	June 10—	Lynn Brothers.....	40
	Whisky Hill Water Co....	4 50		Sunset Telephone Co.....	5 50
	Wells, Fargo & Co.	1 50		A. K. Varney.....	2 00
	Charles Prince.....	34 50	July 7—	Sunset Telephone Co.....	60
	Sunset Telephone Co.....	6 30		C. H. Krebs.....	50
July 30—	W. K. Cothrin.....	1 50		Sunset Telephone Co.....	50
	Ing & Allee.....	20		Department of Interior..	50
	Sunset Telephone Co.....	25		Sacramento Pharmacy...	1 75

EXPENDITURES OF DEPARTMENT UP TO AND INCLUDING OCTOBER, 1902—Continued.

1902.		1902.			
July 7—	J. O. Coleman.....	\$5 00	Aug. 27—A. J. Celio	\$1 50	
	Charles Prince.....	4 50		E. B. Smith & Co.	4 00
	Whisky Hill Water Co....	4 50		William Martin.....	6 00
	N. Ellery.....	2 20		Mrs. F. Frey.....	1 00
	Western Union Tel. Co....	1 40		H. K. Marks.....	16 00
	Wells, Fargo & Co.	1 45		Wells, Fargo & Co.	40
Aug. 27—	F. C. Frey	1 50		Sunset Telephone Co.....	12 05
	William Martin.....	4 00			

APPENDIX C.

EXPENDITURES FROM THE MONO LAKE BASIN OR TIOGA ROAD FUND.

1901.		1901.	
Oct. 2—	Larkin Brothers	Oct. 3—	L. E. Ellwell
	Francis Frey		G. Brown
	W. T. Watson		H. R. Crocker
	A. J. Celio		G. Brown
	D. Bartells		H. R. Crocker
	Otto R. Larsen		Western Union Tel. Co. ...
	Ida S. Hopkins		Rosenwald & Kahn Co. ...
	A. D. Waltz		Harry Church
	J. M. Miller		J. M. Phelan
	Mrs. A. Farrington		O. B. Scofield
	W. J. Farrington		Mrs. A. Taylor
	Mrs. Al Taylor		G. Labaque
	C. B. Taylor		Mike Dundre
	Mrs. A. D. Hopkins		H. Carter
	J. L. Blackburn		John Matley
	George F. Conlin		Thomas Silvester
	N. F. Pickle		G. Labaque
	Joseph Hendrickson		N. W. Boyd
	Marks & Woodman		W. J. Farrington
	N. Ellery		T. C. Sharp
Oct. 3—	Crocker & Co.		M. J. Simons
	Shaw-Ingram-Batcher Co. ...		Leo Matley
	Lynn Brothers		A. Leitz Co.
	John Breuner Co.		John Matley
	American Cash Store		Thomas Silvester
	W. F. Purnell		Leo Matley
	Shaw-Ingram-Batcher Co. ...		Al. Taylor
	R. D. Finnie		W. Vogt
	S. P. Co.		M. C. Blanchard
	John Breuner Co.		N. W. Boyd
	W. F. Purnell		T. C. Sharp
	W. H. Ellis		Thomas Silvester
	Morris Brothers		O. W. Whiting
	Garfield Mayden		J. M. Feeney
	A. Leitz Co.		N. Ellery
	Joseph Ritcheart		J. M. Gleaves
	Joseph Milton		C. W. Vickrey
	Sierra Railway Co.		S. P. Co.
	Sierra Railway Co.	Oct. 10—	T. H. Carlon
	Jos. McGann		H. Morrison
	Joe Cavagnars		F. Kyne
	Matt Johnston		Charles Scott
	A. J. Smith		Grant Carr

EXPENDITURES FROM THE MONO LAKE BASIN OR TIOGA ROAD FUND--Continued.

1901.			1902.		
Oct. 10—	H. J. Furley	\$174 20	July 26—	N. Ellery	\$12 35
	C. W. Vickrey	6 60		W. H. Eckhardt	7 30
	N. Ellery	11 85		Sacramento Pharmacy ..	1 50
Nov. 11—	Locke & Lavenson.....	48		H. S. Crocker Co.	2 00
	Wm. Vogt	1 83		C. Suter	4 00
1902.				John T. Stoll	2 20
May 12—	H. S. Crocker Co.	1 15		W. F. Purnell.....	15
	A. Leitz Co.	12 50		T. H. Cook & Co.	50
	Waterhouse & Lester	2 00		G. Wentz	3 00
July 7—	H. S. Crocker Co.	2 30		John Breuner Co.	3 00
	James McClatchy Co.	12 45		Hale Brothers Co.	25
	Baker & Hamilton	1 00		Veach Novelty Works ...	5 40
	Sacramento Pub. Co.	13 50		Cap. & Sac. Transfer Co..	1 25
	Bodie Miner-Index	9 25	Aug. 28—	James Touhey (first pay- ment)	2,500 00
	Mrs. A. Taylor	3 50	Sept. 22—	James Touhey (second payment)	2,500 00
	John Matley	2 50	Oct. 7—	James Touhey (third pay- ment)	1,600 00
	P. E. Van Lubey	2 00	Nov. 3—	James Touhey (fourth payment)	1,400 00
	Ben Rosenthal	10 00			
	N. Ellery	41 95			
July 26—	Larkin Brothers	2 50			
	R. O. Kimbrough	60			

APPENDIX D.

EXPENDITURES FOR ROADS FOR 1900 AND 1901.

Counties.	1900-1901.	1901-1902.	Totals.
Alameda	\$81,232 38	\$86,329 08	\$167,561 46
Alpine	1,142 61	1,203 31	2,345 92
Amador	17,709 08	16,255 32	33,964 40
Butte	50,602 37	51,227 42	101,829 79
Calaveras	13,577 86	16,846 57	30,424 43
Colusa	33,626 52	33,149 92	66,776 44
Contra Costa	47,188 43	46,287 73	93,476 16
Del Norte	6,402 38	7,008 62	13,411 00
El Dorado	11,342 34	11,308 91	22,651 25
Fresno	66,861 60	70,995 14	137,856 74
Glenn	22,656 35	25,581 43	48,237 78
Humboldt	49,220 21	53,285 02	102,505 23
Inyo	3,705 40	3,774 25	7,479 65
Kern	33,402 58	53,401 44	86,804 02
Kings	17,030 43	17,311 88	34,342 31
Lake	10,878 60	14,358 76	25,237 36
Lassen	11,307 64	10,496 99	21,804 63
Los Angeles	132,753 63	167,640 59	300,394 22
Madera	18,484 65	18,869 82	37,354 47
Marin	28,836 05	29,176 70	58,012 75
Mariposa	6,087 89	8,386 34	14,474 23
Mendocino	33,995 42	33,609 86	67,605 28
Merced	42,631 59	43,926 48	86,558 07
Modoc	10,101 23	10,513 31	20,614 54
Mono	2,373 35	3,411 83	5,785 18
Monterey	35,402 42	41,313 70	76,716 12
Napa	23,319 89	26,261 77	49,581 66
Nevada	17,117 94	19,375 98	36,493 92
Orange	27,469 15	32,441 06	59,910 20
Placer	27,179 87	26,861 25	54,041 12
Plumas	12,616 14	12,558 02	25,174 16
Riverside	22,207 06	25,447 80	47,654 86
Sacramento	46,776 77	47,373 19	94,149 96
San Benito	12,703 63	18,034 03	30,737 66
San Bernardino	44,862 50	46,117 06	90,979 56
San Diego	39,352 23	47,295 18	86,647 41
San Francisco*			
San Joaquin	38,881 79	79,059 81	117,941 60
San Luis Obispo	36,173 02	36,623 17	72,796 19
San Mateo	67,235 52	72,270 35	139,505 87
Santa Barbara	37,837 02	39,304 35	77,141 37
Santa Clara	128,080 28	128,241 34	256,321 62
Santa Cruz	28,983 31	30,717 78	59,701 09
Shasta	23,709 16	28,292 89	52,002 05
Sierra	4,449 10	6,734 65	11,183 75
Siskiyou	24,897 55	21,167 40	46,064 95
Solano	52,881 38	52,810 64	105,692 02
Sonoma	77,383 63	64,448 95	141,832 58
Stanislaus	22,085 98	28,672 41	50,758 39
Sutter	15,100 25	14,956 47	30,056 72
Tehama	28,339 27	29,647 40	57,986 67
Trinity	4,449 10	5,017 59	9,466 69
Tulare	40,156 17	41,396 64	81,552 81
Tuolumne	19,365 88	27,457 52	46,823 40
Ventura	30,111 77	31,434 02	61,545 79
Yolo	46,695 77	44,631 03	91,326 80
Yuba	10,637 10	7,106 81	17,743 91
Totals	\$1,799,611 24	\$1,967,426 98	\$3,767,038 22

*San Francisco: Incorporated as a city and county. No expenditures on roads.

APPENDIX E.

BRIDGES IN CALIFORNIA, 1900-1901.

County.	Span.	Kind.	Roadway.	Cost.	Remarks.	
	<i>Feet.</i>		<i>Feet.</i>			
Colusa.....	600	Steel drawbridge.....	20	\$45,170 00	Wood trestle of 400 feet.	
Glenn.....	150	Pratt truss.....	18	3,980 00		
Glenn.....	65	Pony truss.....	18	500 00		
Humboldt.....	180	Curve top truss.....	18	26,860 00		
Humboldt.....	300	Steel petit truss.....				
Kern.....		Pile trestle.....		2,449 00		
Monterey.....	100	Comb. truss.....		1,400 00		
Monterey.....	40	King post truss.....		500 00		
Monterey.....	30	King post truss.....		400 00		
Monterey.....	180	Pile trestle.....		1,200 00		
Monterey.....	75	Frame bent trestle.....		600 00	Culvert. Culvert. Approaches equal 60 ft.	
Monterey.....	60	Frame bent trestle.....		500 00		
Monterey.....	40 (2)	Frame bent trestle.....		700 00		
Monterey.....	22 (3)	Frame bent trestle.....		550 00		
Santa Clara.....	64 (2)	Pratt pony truss.....		2,221 00		
Santa Clara.....	100	Comb. Pratt truss.....	18	2,473 00		
Santa Clara.....	48	Concrete.....	18	2,573 00		
Santa Clara.....	120	Pratt truss.....	18	2,978 00		
Santa Clara.....	72½	Pratt pony truss.....	18	2,137 00		
Santa Clara.....	120	Pratt truss.....	18	4,695 00		
Santa Clara.....	30	Concrete.....	20	2,175 00		
Santa Clara.....	12	Concrete.....	30	940 00		
Santa Clara.....	12	Concrete.....	23	750 00		
Santa Clara.....	60 (2)	Rubble stone.....		8,347 00		
Santa Clara.....	32	Concrete and rubble stone.....	30	2,950 00		
San Mateo.....		Concrete.....		3,280 00		
San Mateo.....		Concrete.....		4,465 00		
San Mateo.....		Wooden truss.....		926 00		
San Mateo.....		Wooden truss.....		979 00		
San Mateo.....		Wooden truss.....		978 00		
Stanislaus.....	80	Pony truss.....			300 ft. wood'n trestle approach.	
Stanislaus.....	222	Draw span.....	20	30,253 00		
Stanislaus.....	174	Comb. span.....	18	14,853 00		
Trinity.....		Comb. Pratt truss.....		7,000 00		
Ventura.....	24	Steel I. beams.....	18	740 00	Culvert. Culvert.	
Ventura.....	10	Concrete arch.....	26	4,000 00		
Ventura.....	15	Concrete arch.....	30	1,868 00		
Ventura.....	7	Rubble masonry, concrete.....	18	609 00		
Ventura.....	15	Concrete arch.....	18	1,173 00		
Ventura.....	12	Concrete arch.....	30	2,151 00		
Ventura.....	10	Concrete arch.....	28	3,600 00		
Ventura.....	20	Concrete arch.....		3,449 00		
				\$197,175 00		

CALIFORNIA STATE MINING BUREAU.

LEWIS E. AUBURY. - - - State Mineralogist.

REPORT

OF THE

BOARD OF TRUSTEES

COVERING THE

FIFTY-SECOND FISCAL YEAR ENDING JUNE 30, 1901, AND FIFTY-THIRD
FISCAL YEAR ENDING JUNE 30, 1902.



SACRAMENTO:

A. J. JOHNSTON, : : : : SUPERINTENDENT STATE PRINTING.
1902.

GENERAL APPROPRIATION ACT PROVIDING FOR THE SUPPORT OF THE STATE
GOVERNMENT FOR THE FIFTY-SECOND AND FIFTY-THIRD FISCAL
YEARS.

[Approved March 21, 1901.]

The clause relating to the State Mining Bureau reads as follows:

“For support of State Mining Bureau, including salaries, fifty-seven thousand dollars; *provided*, that twenty-nine thousand dollars of said sum shall be expended in making a practical and scientific examination of the Mother Lode, and other mineral districts in California, including the oil districts; and preparing a brief and accurate history of such districts, and the development, product, resources, methods of working, and future possibilities of the mining and oil districts of California. Such examinations to be made by competent experts, experienced in California mining, and assistants; all of whom shall be appointed and their compensation fixed by the Governor.

“For the printing, binding, ruling, and all other work performed and materials furnished by the State Printing Office to the State Mining Bureau, ten thousand dollars.”

The Board of Trustees, in obedience to the mandate of the Legislature and at the request of His Excellency, the Governor, have audited and approved the accounts for traveling, salary, and other incidental expenses incurred by the Field Assistants and other employes appointed by the Governor under provision of said Act.

REPORT OF BOARD OF TRUSTEES OF STATE MINING BUREAU.

SAN FRANCISCO, December 1, 1902.

To His Excellency HENRY T. GAGE, *Governor of California:*

SIR: The Trustees of the State Mining Bureau herewith submit their report, in pursuance of the Act of the Legislature approved March 23, 1893, entitled "An Act to provide for the establishment, maintenance, and support of a bureau, to be known as the State Mining Bureau, and for the appointment and duties of a Board of Trustees, to be known as the Board of Trustees of the State Mining Bureau, who shall have the direction, management, and control of said State Mining Bureau, and to provide for the appointment, duties, and compensation of a State Mineralogist, who shall perform the duties of his office under the control, direction, and supervision of the Board of Trustees of the State Mining Bureau."

No reports have been printed since the XIIIth (or third biennial), issued September 15, 1896, although numerous bulletins have been issued as hereinafter enumerated. The report herewith submitted covers the fifty-second and fifty-third fiscal years.

WM. C. RALSTON,
THOS. B. BISHOP,
FRANK MONAGHAN,
FRANK G. DRUM,
F. H. HARVEY,

Board of Trustees of the State Mining Bureau.

The term of office of Hon. A. S. Cooper, State Mineralogist, expired by limitation in the month of April, 1901, and Hon. Lewis E. Aubury was appointed his successor on April 6, 1901, and the latter entered formally upon the discharge of his duties on that date.

At the first meeting of the Board of Trustees after his induction in office, Mr. Aubury submitted a number of changes in the methods formerly pursued, which he thought would materially add to the practical benefits to be derived from the Bureau by the public, and at the same time effect a greater economy in the distribution of the Bureau

funds. The Board of Trustees decided to accept the views of Mr. Aubury, and he was instructed to follow out the plans submitted by him.

Under the provisions of the State Mining Bureau Act, approved March 23, 1893, it becomes the duty of the Board of Trustees to make a biennial report to the Governor of the State, with a statement of the receipts and disbursements in detail, and with this report must be incorporated the biennial report of the State Mineralogist.

It may be stated that while complying with the provisions of the law in submitting these reports of the Trustees and the State Mineralogist, that of the latter is much curtailed from its former dimensions by reason of the change of plan in issuing the publications of the Bureau. It was at one time considered best to issue in one volume biennially the reports not only of the Trustees and Mineralogist, but of all the Field Assistants, etc. This usually made a bulky volume of some six or seven hundred pages, costly to print and mail, with much of the contents a year or more behind the date. Under the provisions of the Act of March 23, 1893, in addition to requiring the State Mineralogist to report biennially to the Board of Trustees, he was given the privilege of issuing from time to time such bulletins as he deemed advisable concerning the statistics and technology of the mineral industries of the State.

Taking advantage of this provision of the law, he has deemed it best, instead of issuing once in two years in a single volume the results of all the work of the assistants under his supervision, to issue bulletins from time to time, publishing the matter as fast as completed, each bulletin covering a single subject only. In this way those desiring information on any special branch of the mining industry may obtain a bulletin on that subject only in convenient form, and the matter is fresh and up to date.

This system of publication has obviated the necessity of issuing everything in one large volume, and only once in two years, and has been found much more satisfactory than the former plan. The Board of Trustees has, therefore, indorsed the plan carried out by the State Mineralogist in the matter of the publication of bulletins. Of what these have consisted in the past two years is fully shown in his report.

In pursuance of this method, certain persons, skilled in their specialties, have been temporarily employed as Field Assistants to collect and prepare material and data on special subjects, their employment ceasing on publication of the bulletin in question.

With the consent of the Board of Trustees, the State Mineralogist has inaugurated a "revolving fund" for the printing of reports, bulletins, and county mine registers, by making a small charge for each. The prices are merely nominal and do not, of course, cover the cost of preparation of the material or payment of services of the Field Assistants.

It was found, however, that with free distribution to all who came or wrote for publications, both in and out of the State, without opportunity or power to discriminate, the editions were rapidly exhausted, and hundreds of them were subsequently found on the shelves of second-hand bookstores. By making a small charge for the publications they only reach the hands of those who really want them, and waste is prevented. The money derived from these sales is accounted for and used for subsequent printing expenses. Libraries, public institutions, etc., are provided copies without cost.

MUSEUM.

The exhibit in the Museum now consists of upward of 16,000 specimens of ores, minerals, and metals. In addition to this, a large collection of crude petroleum and oil-bearing formations from all the producing districts in the State is now being prepared and is nearly complete. The Bureau has recently received from the Smithsonian Institution at Washington, a very valuable collection of 215 specimens, known as the series of "Becker's Comstock Lode Rocks." Besides these, many other valuable specimens have been received from this and other States, British Columbia, Alaska, Mexico, Australia, South Africa, and the Philippine Islands. The following are some of those deserving special mention:

The first bar of "blister copper" produced on the Pacific Coast, from the Pacific Coast Smelting and Refining Works; presented by the Copper King Co., Ltd., of Fresno County.

An unusual specimen of crystallized gold formed in the decayed root of a tree; presented by W. W. Thomas.

From W. C. Hart, a valuable specimen of epidote crystal from Prince of Wales Island, Alaska.

Some characteristic ore from Tonopah, Nye County, Nevada, has been presented by J. M. Day, and a remarkable sulpho-telluride ore from Kalgoorlie, West Australia, by W. H. Rodda.

Not including the Becker series, there have been received in the past two years upward of 600 specimens of ores and minerals from different localities suitable for adding to our catalogue. In addition there have been large numbers of duplicate specimens received, which have been suitably labeled and stored for use in exchange and school purposes. Much of the duplicate material is of educational advantage to the pupils of the advanced grades in the public schools. The Mining Bureau has prepared "school collections" from these specimens and distributed them gratis to the public schools where the study of mineralogy has been encouraged.

In the Museum there is now on exhibition a working model of a modern five-stamp mill, complete in every detail, with rock-breaker,

battery, concentrator, etc. The parts were constructed by skilled mechanics at the Union Iron Works of San Francisco, and all carefully made to scale to represent a perfect modern California quartz mill. This mill was constructed to the order of the California Paris Commission, and was by them exhibited at Paris, it being understood, however, that it would finally be sent back to California for permanent exhibit in the State Mining Bureau. Having, with other things, been put in charge of the United States Government authorities at the close of the Exposition, and brought back as far as Washington, it came near becoming one of the exhibits in a museum of that city. Through the efforts of State Mineralogist Aubury, however, it was finally shipped to the State Mining Bureau. The model is capable of being run by electric power and gives a very good practical idea of the treatment of ore in its various stages after leaving the mine.

A large relief map of California, colored and lettered by Bureau draughtsmen, has been placed in the Museum, and proves of great interest and benefit to visitors.

In addition to ordinary ores, etc., the collection of structural and industrial material has largely increased in the past two years.

From the several collections in the Museum, the State Mining Bureau exhibited at the Buffalo Exposition a fine collection of specimens of the characteristic ores, minerals, etc., of the State. It sent likewise a complete exhibit of mine models, mining appliances, etc., illustrating past and present methods in connection with the industry.

The continued interest in the Museum of the Bureau is demonstrated by the fact that in the current year alone upward of 60,000 visitors registered in the books kept for that purpose. It can safely be estimated that as many persons visited the Museum who failed to register, as at times the numbers present make it impossible for all to use the registers. In its present location in the Union Ferry Building, at the foot of Market street, San Francisco, the Museum is so situated as to attract daily many hundreds of persons from different parts of the Coast and elsewhere, which is a decided advantage in advertising the mining industry of the State.

The Trustees of the Bureau desire to express their continued thanks to Wells, Fargo & Co., and to the Southern Pacific and Santa Fé Railroad Companies for free transportation of specimens and exhibits addressed to the Bureau.

LIST OF DONORS.

Andrew, John H.	Constitution Mine	Hurdt, John
Anderson, F. M.	Cambrian Mine	Hart, W. E.
Aden, H. J.	Copper King Mine	Hahn, A. H.
Afterthought Mine	Chevane Mine	Howe, A. S.
Algol Mine	Day, H. H.	Heald, F. H.
Alabaster Cave Mine	DuBois, P. C.	Hylands, M. H.
Arnold, Ralph	Draper, F. W. M., M.E.	Henderson, George
Aubury, Marion	Dyer, W.	Hussleman & Shaw
Big Pine Mine	Davis, Dr. G. E.	Huff & Gibson
Badders & Co.'s Mine	Darboroa, I. H.	Hunter, J. H.
Blood Mine	Day, J. M.	Hutchins, Joseph
Boston Mine	Dunham, W.	Henault, Denis
Balfour, Guthrie & Co.	Davis Mine	Henry Hibbe Mine
Big Comas Mine	Duncan Mine	Hartman, T. A.
Bachelder, J. F.	Dura Mining and Milling Co.	Heiskell Mine
Brady, M. A.	De La Mar Mine	Ione City Mine
Bush, A. E.	Estey, G. S.	Island Mt. Copper Mine
Blue Lead Mine	Eastwood, J. S.	Iron Mountain Mine
Brookstead Mine	Evans, L.	Johnson, J. S.
Benjamin, E. H.	Ekman, A.	Johnson, A.
Burgen, Gustav	Emily Arnot Mine	Josselyn, H. E.
Butler, E.	Eureka Slate Quarry	Jackson Mine
Balser, George	Elgin Mine	Keeler, F. B. S.
Bolton, Arthur	Ella Mine	Knox, R. B.
Baliol Mine	Fields, J.	Knauss, F. V.
Balaklala Mine	Fitch, H. H.	Kleinhaus, R. P.
Bully Hill Mines	Finch, J. G.	Kelly Bros.' Mine
Black Diamond Mine	Farman, B. F.	Keeney, F. W.
Burgess, Dr. C. F.	Frazier, F. W.	Lyle, F. M.
Bailey, L. N.	Ford Mine	Le Cry, Joe
Bailey, G. E.	Fuca Lunda Mine	Leonard, J. C.
Briggs, G. S.	Fields & Leperron Mine	Liebrandt, J.
Burris, F. P.	Fresno Copper Mine	Lowden, J. S.
Butters, J. F.	Friday & Lowdens Mine	Leperron, R.
Borden, E. G.	Gibson, R.	Lawlor, T. S.
Barker, R.	Grider, W. F.	Loomis, J. W.
Bramber, J. E.	Gibson, A. A.	Lightner, H. B.
Brereton, R. M.	George, L. E.	Lawrence, H.
Bartlett, W. P.	Green Mountain Mine	Larkin Mine
Bell, J.	Gold Crown Copper Mine	Ludwig, J. H.
Covey, David M.	Golinsky Mine	Le Victoria Mine
Collins, R. W.	Grey Eagle Mine	Last Chance Mine
Condit, P. E.	Gibbs, F. N.	Mathyas, F. C.
Craig, R.	German Mine	Muller, B. F.
Charles, J. C.	Great Peaks Gold Mine	McAllister, G. W.
Carson, E. W.	Gester, Wm. B.	McElven, D.
Coats, C. D.	Gaby, Buntin & Sayle	Maskelyne, Professor
Coe, H. S.	Godfrey's Mica Mine	Montgomery, S. E.
Copper Hill Mine	Gallowglass Mines	McKalip, T. J.
Cunnigham & McVicar	Hanault, David	May, A. P.
Commodore Mine	Hibbe, Henry	Miles, F. C.
Chaix, G.	Heighway, A. E.	Mount Bischoff Mines
Conrad Silver Mine	Hammon, H. M.	Montgomery & Byers
Cooke, J. B.	Hayes Bros.	McNulty Mine
Copper Cliff Mine	Hammon, E.	Marfa and Mariposa Mines
Cavin's Mine	Howard, Charles W.	Mast, C. L.
Cornett Mine	Henlsdonk, W. A.	McMillan, F.

LIST OF DONORS—CONTINUED.

Madeira, George	Pyn Smelting Co.	Stevens, Thomas
Manson, T. D.	Pine Mountain Mine	Spread Eagle Mine
Mendoza, M. G.	Quigley, W. B.	Santa Ana Mine
Moon Mines	Ryan, M.	Socrates Mine
Mammoth Group of Mines	Rodda, W. H.	Sharpe, Montroyd
Maryland Mine	Roth, George	Smythe & Herrick Bros.
Newcomb, B. M.	Right, W. C.	Santa Cruz Copper Mine
Newhall, E. P.	Riordan, Ph.	Sickler, Allen
Oliver, A.	Robert, C. A.	Stringfellow Mine
Overholster, Prof.	Robert, W. L.	Schmidt, George H.
Paris, O. M.	Robert, Louis	Tonkin, J. B.
Preston, E. B.	Reid, D. G.	Thomas, W. W.
Parsons, M.	Russell, W. H.	Tolman, G. B.
Parks, J. J.	Robillard Mine	Tregidgo, Alf.
Probert, Edward	Reward and Beckwith	Tryree, C. W.
Paoli Gypsum Co.	Redcap Mine	Traveler Mine
Peterson, George	Saderling, S. C.	Thayer Mine
Pacific Mine	Smyth, Frank	Valencia, H. B.
Pope, C. G.	Stevenson, Thomas	Vercoe, H. G.
Parsons, W. D.	Somers, J. B.	Van Gusen Claim
Polar Star Mine	Sullivan, J. J.	Wilson, Homer
Pocahontas Mine	Sharpe, M.	Williams, E. H.
Penn Mine	Salstedt, L. E.	Wooster, P. L.
Pattee Mine	Smythe, J.	Wadsworth, H. S.
Pioneer Mine	Scholler, Dr. John	Watts, W. L.
Peler-Oest Claim	Shebley, W. H.	Wagner Mine
Painter Mine	Sydney, O. R.	Welker, William
Powell Bros. Mine	Sanders & Haven Mine	Ygnacia Mine

A large number of specimens were also sent to the Museum by the Field Assistants who obtained them in the course of their investigations.

LIBRARY.

There have been few additions to the Library by purchase, owing to lack of funds, but many official reports and government publications have been received, besides monographs, bulletins, etc., from home and foreign societies. It is highly desirable that numerous modern books relating to mining and metallurgy be purchased for reference purposes. They are frequently sought by persons visiting the Library, but are at present unavailable. Works of this character are usually expensive, and are not found in the ordinary libraries. For these reasons the Bureau should have such reference books if possible.

A regular system of card cataloguing the Library was introduced in July, 1901, and has been found to be of great advantage to the public.

In July, 1901, the system of charges for all publications except the statistical bulletins came into force. The Bureau has distributed several thousand bulletins and many copies of old reports. Many publications have been issued gratis to exchanges, libraries, and public institutions in the United States and Europe.

Of mine registers and maps of the different counties the Bureau has

made an enormous distribution, they being much sought for. These county registers are found very useful. They contain a brief description of every mine, mill, etc., in the respective counties, with corresponding maps showing the exact location of the mines by number, and their relative positions to railroads, roads, streams, etc. The amount of development on each mine is noted, and the addresses and names of owners and superintendents are given. They form a complete reference index to the mining industry of each county. The work on many counties yet remains to be done, but progress is being made along these lines.

The statistical bulletins issued and distributed free in the last year number over 13,000.

Hundreds of letters in response to those of inquiry are sent out each month. Questions of very varied character are asked as to the mineral resources of the State. Many of these letters come from outside of the State.

LABORATORY.

During the past two years the mining public has used the Laboratory Department of the Mining Bureau to the extent of sending two hundred samples a month by mail for determination, and a like number have been brought in personally for inspection and determination for a corresponding period. The assistant in charge of the laboratory makes no quantitative assays, but only qualitative determinations, and these are made at no cost to the public. If, after having determined for them the character of an ore, they desire assays or analyses, the specimens must be taken elsewhere to a regular assayer in that business. In addition to the determination of specimens, however, mining and metallurgical questions have been submitted for opinions. In fact, the work of this department has become of so great and varied a character that a chemical assistant is becoming an urgent necessity, if patrons are to receive quick returns or reports.

Recently the laboratory has had a number of conveniences added, among them a Braun gas assay furnace, with gasoline tank, air pump, etc., a rock-crusher and a pulverizer. The latter two machines are run by an electric motor, saving much time and labor. There has also been added a new acid-fume closet, to carry fumes direct into the outer air.

FUTURE WORK.

California is now mining, quarrying, or commercially utilizing forty-nine mineral substances, the amounts and values of which are noted in Bulletin No. 25 of the Bureau. The total value of these substances for the year 1901 was \$34,355,991. The mineral industry of the State has shown for the past few years an average annual increase in value of

\$2,000,000. The total mineral product of California for the past fifteen years, as shown by Bulletin No. 26 of the Bureau, was \$346,023,688.

This large sum indicates the extent of the mining industry of California. Capital is greatly needed to further develop these resources, and for this reason the State should make a suitable mineral exhibit at the St. Louis Fair. California can make an excellent showing, and it is to be hoped that the Legislature will make a suitable appropriation for the collection, installation, and maintenance of an exhibit under the direction of the State Mining Bureau. Such a collection once carefully made and cared for could be used for display at any World's Fair.

It is deemed proper also to suggest a special appropriation, to be placed in the hands of the Board of Trustees of the Bureau, for the purpose of compiling maps and mine registers of the various counties of the State. This work is somewhat expensive and its furtherance draws heavily on the regular appropriation of the Bureau.

EXCHANGES.

The Board of Trustees wishes to extend thanks to the editors and publishers of the following papers, which have been forwarded free to the Library:

Angels Record, Angels Camp.	Inyo Independent, Independence.
Australian Mining Standard, and Financial Review, Sydney and Melbourne.	Ione Valley Echo, Ione.
Amador Record, Sutter Creek.	Journal, Los Angeles.
Amador Ledger, Jackson.	Journal, Salinas.
Amador Dispatch, Jackson.	Julian Miner, Julian.
Bee, Sacramento.	Jerome Mining News, Jerome.
British Californian, San Francisco.	Journal of Commerce, San Francisco.
Contra Costa Gazette, Martinez.	Mother Lode Banner, Sonora.
Commercial News, San Francisco.	Mercury, Madera.
Chino Valley Champion, Chino.	Mining Record, Colorado Springs, Colo.
Citrograph, Redlands.	Mining Review, Los Angeles.
County Paper, Martinez.	Mining and Eng'ing Journal, New York.
Del Norte Record, Crescent City.	Mining and Scientific Press, San Fran.
Democrat, Woodland.	Mineral Wealth, Redding.
Dispatch-Democrat, Ukiah.	Mining and Engineering Review, San Francisco.
Eureka Sentinel, Eureka, Nevada.	Mines and Minerals, Scranton, Pa.
Eel River Valley Advance, Fortuna.	Mining Reporter, Denver.
Encinal, Alameda.	Mountain Messenger, Downieville.
Enquirer, Oakland.	Mercury, Oroville.
El Dorado Republican, Placerville.	Middletown Independent, Middletown.
Electricity, Power and Gas, San Francisco.	Mail, Woodland.
Free Lance, Hollister.	Mining Review, Ottawa.
Free Press, Ventura.	New Zealand Mines Record, Wellington.
Free Press, Redding.	Nugget, Placerville.
Gazette-Mariposan, Mariposa.	News, Red Bluff.
Gazette, Georgetown.	Oceanside Blade, Oceanside.
Graphic, Oakdale.	Oregon Mining Journal, Portland.
Herald, Los Angeles.	Oil, Mining and Finance, Los Angeles.
Herald, Arroyo Grande.	Press Horticulturist, Riverside.
Humboldt Standard, Eureka.	Placer Herald, Auburn.

Press-Democrat, Santa Rosa.	Scott Valley Advance, Etna.
Prospect, San Andreas.	Times, Madera.
Petaluma Weekly Courier, Petaluma.	Town and Country Journal, Melbourne,
Porterville Enterprise, Porterville.	Australia.
Pacific Coast Miner, San Francisco.	Tribune, Oakland.
River News, Rio Vista.	Tribune, Healdsburg.
Reveille, Cloverdale.	Tribune, San Luis Obispo.
Register, Bishop.	Tidings-Telegraph, Grass Valley.
Reflector, Napa.	Union Democrat, Sonora.
Republican-Argus, Auburn.	Valley Record, Ashland, Or.
Republican, Fresno.	Western Mining World, Chicago.
San Diegan Sun, San Diego.	Willows Journal, Willows.
Sun, Colusa.	Wood River Times, Hailey, Idaho.
Stanislaus County Weekly News, Modesto.	Weekly Union, San Diego.
Siskiyou News, Yreka.	Yolo Semi-Weekly Mail, Woodland.
Sentinel, Colfax.	Yuma Sun, Yuma.

FINANCIAL STATEMENT.

FIFTY-SECOND FISCAL YEAR—JULY 1, 1900, to JULY 1, 1901.

Balance on hand July 1, 1900.....		\$480 42	
Appropriation.....		25,000 00	
Mining Bureau Fund.....		100 00	
Salaries of Geological Assistants.....	\$6,445 48		
Traveling expenses of Geological Assistants.....	4,533 66		
Rent of premises (Bureau).....	1,620 00		
Salaries of Bureau employés.....	7,806 75		
Library account.....	848 91		
Laboratory account.....	401 00		
Freight and express charges.....	125 38		
Postage account.....	355 60		
Sundry expenses of Bureau.....	203 19		
Salary of State Mineralogist.....	3,000 00		
	<u>\$25,339 97</u>		
Balance.....	240 45		
		<u>\$25,580 42</u>	<u>\$25,580 42</u>

FIFTY-THIRD FISCAL YEAR—JULY 1, 1901, to JULY 1, 1902.

Balance forward.....		\$240 45	
Appropriation.....		28,500 00	
Mining Bureau Fund.....		100 00	
Salaries of Geological Assistants.....	\$8,641 00		
Traveling expenses of Geological Assistants.....	3,694 46		
Sundry expenses.....	540 13		
Rent of premises (Bureau).....	1,620 00		
Salaries of Bureau employés.....	8,337 98		
Library account.....	587 84		
Laboratory account.....	178 30		
Freight and express charges.....	152 67		
Minerals and Museum.....	168 00		
Postage.....	297 20		
Small sundries.....	206 71		
Clerical assistance.....	60 50		
Salary of State Mineralogist.....	3,000 00		
Balance forward.....	<u>1,355 66</u>		
		<u>\$28,840 45</u>	<u>\$28,840 45</u>

REPORT OF THE STATE MINERALOGIST.

To his Excellency HENRY T. GAGE, Governor of the State of California:

SIR: In pursuance of the provisions of "An Act to provide for the establishment, maintenance, and support of a Bureau to be known as the State Mining Bureau," etc., approved March 23, 1893, I herewith present my report of the work performed by the State Mining Bureau from April 6, 1901, to December 15, 1902.

Respectfully submitted.

LEWIS E. AUBURY,
State Mineralogist.

SAN FRANCISCO, December 15, 1902.

Since 1896 the State Mining Bureau has not issued any Biennial Report of the State Mineralogist. It has been deemed advisable by the Board of Trustees that no regular biennial report, embracing all of the work of this department from April, 1901, up to the present time, should be issued to the public. In explanation of this action it has been found that it is to the interest of the public that bulletins (or reports) which cover special subjects would best meet the demand, and furnish better satisfaction than the biennial reports which have heretofore been issued. At the same time it would effect a vast saving to the State in the cost of printing. It has also been observed that seekers for information concerning the mineral products of the State wish to obtain the most recent data relating to the industry, and in most cases the information sought has been in regard to particular subjects. For this reason, a departure has been made from the regular course heretofore pursued.

The fundamental idea of the law creating the State Mining Bureau is that it shall be helpful and instructive in a practical and scientific way to all engaged in the mineral industries of the State. In my opinion, the best methods to pursue in accomplishing this purpose are through the Bureau publications, by the Museum and exhibits, and also the laboratory work. Another object of the Bureau is to make the

mineral resources of California known to the people of the world and especially to those seeking investments. Also to prevent injury, as far as may be, to the good name of the State, through false reports and the operations of fraudulent mining companies. A summary of the work along these lines is herewith presented.

PUBLICATIONS.

The most important work of the Bureau, and the one most vital to its success, is its publications. Efforts must be made to satisfy the demands of the public and to perform the work most thoroughly and accurately. With these objects in view, the present administration has endeavored to comply. It has been found that the classes of people who utilize the reports are persons interested in some particular county and those interested in some particular industry.

In considering these classes it is found that, first, the citizens of each county are interested in all of the resources of their particular county, in its prosperity and its future prospects. With official maps, statistics, and with a description of its mineral resources, the county is ever ready to advertise itself and its resources, if it is fully equipped with the necessary data.

Maps by counties offer the most economical method for recording and exhibiting to the investing public their economic geology, the location of mines and minerals of value, the regions which await development, and other advantages that present themselves.

Secondly, general investors interested in *special* industries are not confined to county lines, and the person interested in one industry may care nothing for another. They wish to have the latest information in the one particular industry in a condensed form, and covering the whole State.

The following publications have thus far been issued under my direction:

"Reconnaissance of the Colorado Desert Mining District," which furnishes a description of a portion of the Colorado Desert, in San Diego County, and is a report which treats upon the geological formations of that district, and of the possibilities of the existence of oil. 19 pages.

Bulletin No. 21, "The Mineral Production of California during the year 1900," showing the total production of each county and character of mineral produced.

Bulletin No. 22, statistical bulletin, showing the total mineral production of California for fourteen years, including 1900.

Bulletin No. 23, "Copper Resources of California," which furnishes a complete list of all the copper mines and prospects in California, with a description of the same, and the history of copper mining from its commencement up to April, 1902; also, statistics of production and

geology of the copper belt. This bulletin contains 282 pages, with maps showing the location of the various mines, and is the first bulletin on this subject which has been issued by this department.

Bulletin No. 24, "Saline Deposits of California," a bulletin which treats of investigations made, during 1901, by the State Mining Bureau, of the nitrate deposits in Death Valley and vicinity. It also furnishes a complete description of the salt, soda, and borax industries in this State, with tables of production, etc., from their inauguration up to January 1, 1902. The locations of the various deposits are designated on a map which accompanies the bulletin.

Bulletin No. 25, statistical bulletin, showing the mineral production of California by counties for the year 1901.

Bulletin No. 26, statistical bulletin, showing the total mineral production of California and its gradual increase for fifteen years, including 1901.

A statistical sheet was also issued, showing the total gold production of California by years from 1848 to 1901, inclusive.

Several thousand pamphlets were also printed and distributed to persons visiting San Francisco from outside the State, and which in a brief way called attention to California's mineral possibilities.

As there has been a demand for bulletins issued under former administrations, and these publications having been exhausted, they were reprinted and the demand supplied.

These bulletins will be revised, and with others which will be of aid to the miner on mining and metallurgical subjects, will be issued.

MAPS AND REGISTERS.

Mineral maps and registers of the following counties have been issued: Placer, Lake, El Dorado, Inyo, San Bernardino, Shasta, and San Diego counties, all of which have been issued under my direction. Maps and registers of Nevada, Trinity, Siskiyou, Plumas, and Calaveras counties can also be obtained, these having been printed by a previous administration.

The maps of the counties are compiled from the latest and most reliable data obtainable. They show the location of each mine or mineral deposit, the towns, roads, railroads, trails, ditches, electric lines, streams, mineral springs, etc.

In the registers which accompany these maps, a general description of each mine and mineral deposit is given.

WORK OF THE BUREAU.

Fraudulent Mining Companies.—Many inquiries have been received from different portions of the United States and Europe concerning and

questioning the reliability of certain mining companies operating in this State. In several cases the claims made by these companies were of the most extravagant nature, and as the State Mining Bureau has been considered the source from which reliable information could be obtained by investors regarding the management, development, etc., of mining properties, inquirers have been furnished with all data available. Complaints are now on file at the Bureau from investors who claimed to have been swindled by some of these notorious concerns, and acting upon these numerous complaints, investigations have been conducted toward the confirmation of them.

Reports of Field Assistants have shown that the companies investigated were making gross misrepresentations of their mines, and swindling operations were being carried on which were affecting the legitimate industry of the State. The attention of the Postoffice authorities was called to the most flagrant cases, and evidence furnished them which might aid them in prosecuting the offending companies.

While it might not be possible to reach all of this class of operators and expose them, great discretion has been exercised in examining into the affairs of these companies, as it was not the desire of the Bureau to condemn any properties in which legitimate mining methods were being conducted.

Timber Location of Mineral Lands.—Many complaints from miners of the counties of Siskiyou, Shasta, Trinity, Plumas, Butte, Calaveras, and Placer were received, stating that timber locators were interfering with their rights and covering their claims with timber locations, and asking the Bureau if some relief could be afforded by this department.

While it was not within the province of this Bureau to take up the individual cases of the complainants and aid them in their contests, it was considered advisable to investigate these complaints as a whole with a view of ascertaining the truth in the matter and bringing it to the attention of the proper authorities. A special agent was appointed to make a report on existing conditions, and an examination has been made of the lands in the Susanville District and part of the Marysville District. A majority of the complaints have been verified, and the special agent's report was forwarded to the Department of the Interior at Washington, in order that a proper official investigation might be made, should it be deemed necessary by that department. The agent of this department has also investigated complaints from miners in the Redding Land District.

Looking to the protection of the miner and the agriculturist from the actions of the timber locators, and for the conservation of the waters and the protection of the forests, the State Mining Bureau, in conjunction with the Sacramento Valley Development Association, presented a

memorial to the President of the United States, asking that the timber lands in the various land districts of northern and central California be withheld from entry until such time as a proper investigation of the matter could be made. Official action has been taken and all of the timber land entries in California have been suspended from patent pending examination by the Department of the Interior. Agents of that department are now carrying on investigations.

Recommendations were also made to the Department of the Interior that a re-classification of these lands be made before the same were again thrown open to entry.

PRESENT WORK OF THE BUREAU.

Quicksilver.—For some time past field assistants have been and are at the present time engaged in collecting data for a report upon the quicksilver mines of the State. This bulletin will furnish a complete description of that industry.

Gold-Dredging.—A new and important branch of gold mining in California, and which is attracting much attention at this time, is the subject of gold-dredging. Efforts have been made to obtain reliable information from companies and individuals operating dredgers, but the work has been retarded by the difficulty in procuring accurate data concerning portions of the work, which data were necessary in order to properly present this bulletin. However, this report will in a short time be completed and printed.

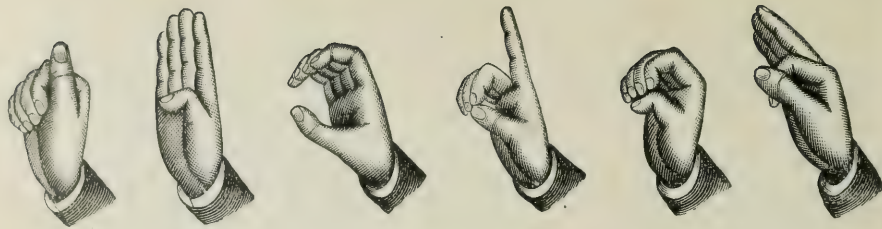
Field Assistants have also gathered considerable data concerning the "Uses of California Oil and Its Applications"; also on "Structural and Industrial Materials."

Field work is in progress on the maps and registers of the counties of Kern, Santa Barbara, Sierra, and Mariposa.

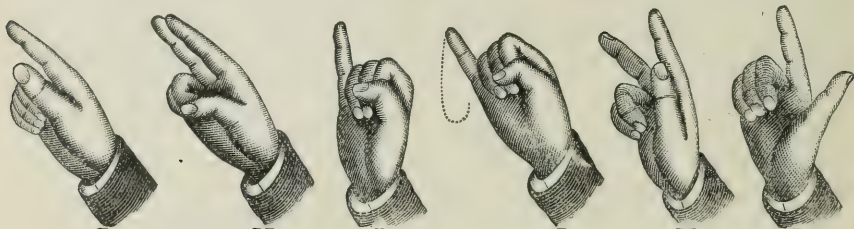
A card catalogue has been made of over 8,000 California elevations, which have been compiled from public, private, and railroad surveys, United States Coast and Geodetic Survey, and United States Geological Survey. The catalogue is constantly being added to.

The above comprises the past and present work under this administration.

With this report is presented copies of all bulletins, reports, and maps and registers which have been issued since April, 1901, and which have been herein described.



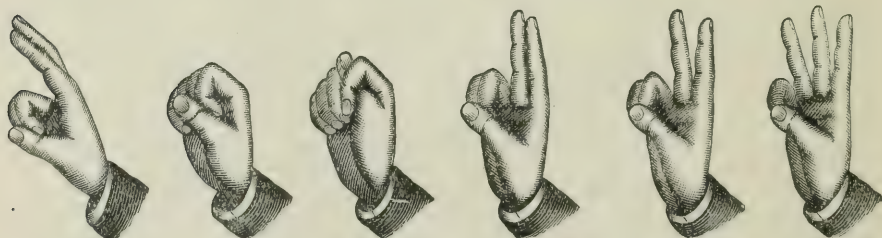
A B C D E F



G H I J K L



M N O P Q



R S T U V W



X Y Z & GOOD



1 2 3 4 5 6 7 8 9 10

TWENTY-FIFTH REPORT

OF THE

BOARD OF DIRECTORS AND OFFICERS

OF THE

California Institution for the Education of the Deaf and the Blind,

FOR THE

TWENTY-FOUR MONTHS ENDING JUNE 30, 1902.



SACRAMENTO:

A. J. JOHNSTON, : : : : SUPERINTENDENT STATE PRINTING.
1902.

BOARD OF DIRECTORS.

GEORGE W. REED, <i>President</i> ,	- - - - -	Oakland.
JOHN H. GRINDLEY, <i>Vice-President</i> ,	- - - - -	Oakland.
HENRY PIERCE,	- - - - -	San Francisco.
FRANK W. LEAVITT,	- - - - -	Oakland.
J. G. MATTOS, Jr.	- - - - -	Centerville.

I. H. CLAY, - - - - - *Secretary and Treasurer.*

OFFICERS OF THE INSTITUTION.

PRINCIPAL:
WARRING WILKINSON.

PRINCIPAL'S ASSISTANT:
WILLIAM A. CALDWELL.

TEACHERS OF THE DEAF:
WILLIAM A. CALDWELL, M.A., FRANK O'DONNELL,
CHARLES S. PERRY, M.A., THEOPHILUS D'ESTRELLA,
THEODORE GRADY, B.A., B.L., HENRY FRANK,
MARY A. DUTCH, LAURA NOURSE,
JAMES A. HOWSON, M.A.

TEACHERS OF ARTICULATION:
NATHAN F. WHIPPLE, LIZZIE MOFFAT,

TEACHERS OF THE BLIND:
CHARLES T. WILKINSON, FLORENCE E. MONTGOMERY, B.L.,
MARY W. EASTMAN.

TEACHER OF MUSIC:
OTTO FLEISSNER.

TEACHER OF PHYSICAL CULTURE.
ETHEL A. COPLIN.

O. D. HAMLIN,	- - - - -	Physician.
FRANCIS R. MUSSER,	- - - - -	Oculist and Aurist.
DOUGLAS KEITH,	- - - - -	Clerk.
MRS. ETTA BROWN,	- - - - -	Office Assistant.
GUSSIE MAST,	- - - - -	Typewriter.
W. B. HILL,	- - - - -	Boys' Supervisor.
W. S. RUNDE,	- - - - -	Assistant Supervisor.

MATRONS:
M. G. BROWN, A. F. MUNROE,
C. C. ALBERS, S. KIRK,
MARTHA CAMERON.

J. C. JENSEN,	- - - - -	Foreman Carpenter Shop.
A. P. MCCARTHY,	- - - - -	Foreman Printing Office.
FRED HANSEN,	- - - - -	Engineer.
JOHN TREVETHAN,	- - - - -	Electrical Engineer.

REPORT OF THE BOARD OF DIRECTORS.

BERKELEY, CAL., November 26, 1902.

To his Excellency HENRY T. GAGE, *Governor* :

SIR: The Directors of the California Institution for the Deaf and the Blind respectfully submit their report for the two years ending June 30, 1902. Also, the report of the Principal, showing in detail the movement of pupils, the conduct of the Institution as its executive officer, his suggestions looking to the welfare of the school, and his estimates for the fiscal period ending June 30, 1905. It will be seen from this report that there have been under instruction for the two academic years 260 pupils, of whom 184 were deaf and 76 were blind. During the same period 51 have been graduated and discharged, including one death, leaving 209 names on the rolls June 30, 1902. Since the opening of the term 26 new pupils have been admitted and 12 discharged, leaving 223 pupils on the rolls at date of writing. The report of the Treasurer, also submitted herewith, shows the receipts of all money from various sources and its disbursement, while the Principal's dissections give the cost of items for which the money was expended. From these exhibits it will be seen that the sum of \$120,703.82 has been drawn from the State Treasury on account of appropriation for support, and disbursed as shown by vouchers on file in the Controller's office. The Contingent Fund, of which a statement will be found in the Treasurer's report, shows a balance in the State Treasury June 30, 1902, of \$1,649.24. By the aid of this balance in the Contingent Fund, it is hoped to maintain the Institution to the close of the fiscal period, June 30, 1903.

The Directors are glad to report that by the most rigid economy the institution has been brought to the end of another fiscal year without a deficit. In this regard the Directors feel that it is unjust to them and to the sacred interests committed to their charge to compel them, by inadequate appropriations, to pay less salaries and wages than are paid for the same kinds of service by private individuals. By a comparison of the salaries and wages paid at this Institution, with those paid at the other State institutions, it will be seen that our schedule is much too low, and the Directors feel that a radical change in this matter must be made. While we are in favor of an economical administration of all State institutions, we do not believe that it is a wise policy to see how little you can pay an employé to secure his services, but, on the contrary, the rule should be, to pay every employé a just and fair compensation

for the services rendered. By this method a better class of employées will be secured and much better and efficient service will be performed. We are led to these views to some extent by the increased cost of supplies of all kinds, and we certainly feel that every employé of this Institution should at least receive sufficient compensation to be enabled to live in a manner suitable to his or her station in life. We feel confident that the people of this great State will agree with us in these views, and that the Legislature about to assemble will make an appropriation sufficiently large to enable the Directors to carry out their views herein expressed upon the subject of wages and salaries.

We also approve of what the Principal says in his report in regard to the unwisdom of deferring repairs and the renewal of equipment until large special appropriations are made, believing that immediate attention to such matters is the truest economy. The time will soon come, if it has not already arrived, when the segregation of the blind from the deaf will have to be provided for, in accordance with the views expressed by the Principal in his report, and we invite the Legislature to carefully consider this subject, with a view of making such appropriation therefor in the future as may be necessary and proper.

Since the last report there has been only one change in the personnel of the Board, and that was the appointment of Mr. John G. Mattos, of Centerville, in this county, in place of Mr. Brewton A. Hayne, whose term had expired.

The epidemic of smallpox, referred to in the Principal's report, convinced the Directors that consideration for the safety of the pupils required that immediate measures should be taken for the building of a segregated hospital, where children attacked by contagious diseases could be at once separated and treated before such diseases became epidemic, and thus involving, as was the case in 1901, the expensive necessity of breaking up the school. They therefore had plans drawn, and have erected a building, which is in every respect a model, up-to-date hospital, paying for the same by borrowing money from certain trust funds in the control of the Board. It is hoped and expected that the Legislature about to convene will make an appropriation reimbursing the funds from which the money was borrowed, and a bill to that effect will be introduced at the proper time. The hospital is about completed, but the vouchers of expenditure are not all in at the present writing, so that the exact amount can not be stated. It will be, however, not far from \$15,000.

In this connection we desire to congratulate ourselves upon the selection of Dr. O. D. Hamlin as the physician for the Institution. His management of the epidemic of smallpox, without a single death, and the successful stamping out of the dread disease in the shortest possible time, his scientific treatment of little Marco Donati, who was injured

upon the grounds of the Institution, and whose life was despaired of for weeks, makes a record of which any physician may well feel proud.

The Directors have very carefully investigated and considered all the needs of the Institution, based upon very careful estimates of the natural increase of pupils, furnishing, equipment, and conduct of the new hospital, medical attendance, a just and fair increase in salaries and wages in accordance with the views before expressed, and they feel and believe that an appropriation of \$135,000 will suffice for the proper conduct of the Institution for the two years ending June 30, 1905, and we respectfully and earnestly ask that such appropriation be made. A great and noble work is being done by this Institution for the unfortunate children of California, as the results will fully demonstrate, and the Directors feel that while much of their time and energy are taken up in attending to their duties, their reward can be found in the happy smiles and contented looks of the hundreds of their unfortunate fellow beings, whose interests are intrusted to their charge and keeping.

Again we commend this Institution and all its interests to the kindly consideration of your Excellency and of the people of the State of California.

Respectfully submitted.

GEO. W. REED,
President of Board of Directors.

REPORT OF THE PRINCIPAL.

To the Directors of the California Institution for the Deaf and the Blind:

GENTLEMEN: I have the honor herewith to submit the biennial report of the Institution for the Deaf and the Blind, as required by law, giving its history and statement of expenditures for the two years ending June 30, 1902, and my estimates of appropriations required for its efficient conduct for the two years ending June 30, 1905.

The movement of pupils for the period under review has been as follows:

On rolls, June 30, 1900:

Deaf—Boys.....	88	
Girls.....	56	
	<hr/>	144
Blind—Boys.....	30	
Girls.....	26	
	<hr/>	56

Total both classes..... 200

The admissions since same date have been as follows:

Deaf—Boys.....	21	
Girls.....	19	
	<hr/>	40
Blind—Boys.....	14	
Girls.....	6	
	<hr/>	20

Total under instruction for two years..... 260

There have been graduated and discharged during the same period:

Deaf—Boys.....	23	
Girls.....	18	
Died.....	1	
	<hr/>	42
Blind—Boys.....	4	
Girls.....	5	
	<hr/>	9

Total deductions..... 51

On rolls June 30, 1902..... 209

Admitted since opening of school..... 26

Discharged since opening of school..... 12

On rolls at date of report..... 223

The corps of instructors and employes has undergone few changes since the date of my last report. By reason of failing health, Miss Cordelia Bennet was obliged to give up her work in December, 1900, and Miss

Alice G. Parker resigned January 1, 1901, in order to assume more important domestic relations. Mr. James W. Howson, a distinguished graduate of the Institution and of the University of California, was appointed to Miss Bennet's place, and Miss Minnie Maxwell succeeded Miss Parker. In May, 1902, Dr. Francis R. Musser, of Oakland, was appointed oculist and aurist in place of Dr. Grant Selfridge, whose residence and office in San Francisco made it often difficult and expensive to consult him. His gratuitous services, however, for the past six years merit the commendation of the Directors, and in behalf of the pupils I desire to extend to him their thanks for his care and attention. Dr. Musser comes equipped by experience and study at home and abroad, while his nearer residence will make his services more convenient. After thirty years of strict attention to duty, Miss Mary J. Wiseman retired from her position as matron of Bartlett Hall and has gone to the Eastern home of her childhood to enjoy the rest she deserves. She carries with her the respect and esteem of all those who have labored with her. Miss Martha Cameron has taken her place. The faithful watchman, Joseph Lauderbach, also retired in June, 1902, after eighteen years of service, during which long period he was off duty but four nights. It is pleasant to note such instances of devotion to duty, and I hereby extend to him my good wishes and appreciation of his services.

HEALTH.

The expected epidemic which we had feared these many years, and which has been the ground of my urgent appeals for a segregated hospital, broke out in May, 1901. It came in its most dreaded form—small-pox—and did not cease its spread until over seventy cases were taken to Strauss Hall, which had to be abandoned by the blind boys, and occupied as a temporary hospital. It is useless to inquire how the disease was introduced, whether by a visitor to our class rooms, or by some pupil returning to school after the usual monthly homegoing, and brushing against some infected person in car, boat, or street—enough to know it was in our midst, and how to fight it effectually was the problem. Dr. Hamlin immediately vaccinated all the pupils, and this prompt action, I think, helped materially to ameliorate the severity of the disease. Quarantine was established by the authorities of Berkeley, and the Institution, with its household of nearly two hundred and fifty persons, was cut off from the outside world, and only those who have had a similar experience can realize what that means. The strain on officers, employés, and pupils was severe beyond expression, but it was borne with a patience and fortitude almost unparalleled. The town of Berkeley withdrew its guards after about fifteen days, because of the expense and the recognized impossibility of patrolling two miles of

frontier, and put the responsibility of maintaining the quarantine on the management of the Institution, and after that time there is no reason to believe that a person left the grounds until the health officer of the city declared the epidemic extinct, and the pupils were allowed to go home.

To prevent any possible contagion being carried to their homes by the pupils, the utmost care was exercised. Every child was bathed, sprayed with alcohol, and a perfectly new suit of clothing from hat to shoes put on, after which he was immediately conducted to the gate, where he was met by friends and escorted to his home or put aboard the cars. No case was heard of where a person took the disease in any one of the many neighborhoods where the pupils were domiciled during the vacation.

In view of the bitter experience incident to this epidemic, the Board determined to build a hospital without delay, borrowing the money from trust funds at their disposal, and relying upon the Legislature to make good the loan by an appropriation at the coming session. At present writing, the building is about ready for occupation, and is a safeguard against the epidemics of which we have for many years stood in fear.

THE SCHOOLS.

Nothing of importance has been added to the equipment of the schools since the date of my last report, and with the limited appropriation it has been impossible to increase the teaching force or the apparatus without incurring a deficit, which is contrary to the policy of the management; but, with our limited means, the work of the class-rooms has been satisfactory, in spite of the serious interruption caused by the epidemic referred to above. In consequence of that disaster, there were no closing exercises in June, 1901, much to the disappointment of those pupils who expected to receive their diplomas and certificates at that time. These testimonials of merit, however, were approved and signed by the Board, and forwarded by express, though the final examinations were perforce dispensed with. We lost over a month of the most valuable part of the term, and in place of it, our pupils had to endure the distressing ennui and demoralization of a six weeks' quarantine, with nothing to do but watch the daily procession of blanket-wrapped fellows to the improvised hospital. That they bore it all with patience and cheerfulness was a marvel to me and gave gratifying evidence of the wholesome discipline of the school.

During the past year, we have been trying to work out a scheme of study for the deaf which is intended, as far as possible, to bring the order of development of our pupils and their attainments into unison with the public schools of the State, so that teachers may have both a stimulus and a standard of comparison. Isolated as we are, in a measure,

by our methods of instruction, and the peculiar handicap of our pupils, teachers of the deaf are liable to two faults—provincialism and despair. We see little outside of our own work, and come to have, perhaps, an exaggerated estimate of what we do, because we compare our results only with the results of kindred institutions; whether the work is better or worse makes little difference, the tendency is to narrowness of outlook, and narrowness of view is always provincial. On the other hand, the faithful, hard-working teacher is often appalled with the almost hopeless nature of his task. The longer he teaches, the more dissatisfied he is with results. The infelicities of language, the treacherous memory, often the lack of application, the numberless things to be taught, and the limited term of school life, all combine to dishearten the teacher and drive him to despair. The writer knows, from personal experience, what failure is,

“If failure means
To look back sadly at work gladly done.”

But in spite of the disappointments that often come to the faithful teacher, he should never give way to despair. There are many stony spots in the field of his endeavor, thorns infest the ground, birds carry away the seeds, but there are abundant stretches of fruitful soil where the harvest is thirty, sixty, nay, an hundredfold, and these pleasant spots should suffice to inspire a never-failing hope that labor shall not be in vain.

But at the same time the wide-awake teacher should safeguard himself against provincialism. He should broaden his experience by constant contact with the work and ways of educators in all departments of intellectual culture, and seek frequent comparison with the grammar and high school curriculums, and as far as possible use the same text-books and examination questions. He should bring into the class-room the daily life and movement of the world. Current history studied in the making is of vastly more importance to the deaf to-day than are the factional fights of Rome in its decadence, or the struggles of York and Lancaster for the British crown. To know the duties of good citizenship, to prepare for a wise use of the ballot, to converse intelligently on the Philippine, Transvaal, and Chinese questions, on wireless telegraphy, and the different kinds of power used in the automobile, are of better worth than to know a whole bookful of the scandals of the French court in the time of Louis XIV or the licentious life of Charles the Second. The heroisms of history, the worthy examples of patriotism, of civic and domestic virtue, the causes of national decay, brief statements of great principles at stake in national or internecine strife, and how liberty, personal rights, and civilization have been advanced or retarded by victory or defeat in decisive battles, in the field or the forum—these are all subjects to be arranged in a logical

series of lessons and drilled into the pupil's mind until they become permanent intellectual possessions. It is surprising into what a small compass the essential facts and teachings of history may be reduced when stripped of their petty details.

The subject of geography is generally made too voluminous for the average deaf-mute, and for hearing pupils as well, and seems to be arranged in the interest of the book-maker rather than of the boy. The essential features of geography can be taught in a few lessons inculcated by persistent iteration and constant use of the globe, and the maps in history and current-event instruction. The shape and size of the earth, its rotation and revolution, and their effects in causing the seasons and alternation of day and night; the imaginary lines of latitude and longitude for mapping purposes, with the location of the grand divisions of land and water; also the ocean currents and their effect upon climate and civilization, can be taught quickly and effectively without a book. The political divisions of the land, the great mountain ranges, the dominant streams, the capitals and chief cities of countries, forms of government, and the ethnic characteristics and distribution of the people, and their chief industries and modes of life, all form a very good basis of geographic knowledge, and if the boy is taught how to use maps intelligently the above is about all he will need in future life.

In arithmetic, every pupil of average capacity when he leaves school should have a good knowledge of the four fundamental rules, of fractions in both forms, of tables and their use in trade, of applied percentage and mensuration, and these basic principles should be inculcated by such practical examples as the boy or girl is likely to meet in daily life or business. I can not too strongly urge the importance of rapid and correct notation and numeration, and the mechanical processes of the four "ground" rules, and as soon as possible make these operations a pure mental process without the intermediary fingers. The "tables" should never be taught until the divisions of weights and measures have been practically illustrated. After a pupil has poured four gills of water into a pint measure, and two pints into a quart measure, and four quarts into a gallon measure, he is prepared and ought to memorize his table, but not before.

The majority of people whom our pupils meet in after life will judge their scholastic attainments and the work of the Institution by the penmanship used in their letters and conversations. While it is a mistaken judgment and a wrong standard, still a clear, even, and legible handwriting is a desirable accomplishment, and should be carefully taught and insisted upon. The tendency of pupils is to indulge in rapid and careless movement in writing, both on blackboard, slate, and paper, but this is one of the departments of instruction where *festina lente* aptly

applies, and rapid writing must be preceded by painstaking and slow formation of letters for several of the initial years. When the character of one's penmanship is acquired, speed will come by subsequent practice.

Physiology is important, because upon the proper hygiene of the body depends usefulness in, and enjoyment of, life, but I would not use a text-book. The whole subject, so far as our pupils need to know it, can be effectively taught in carefully prepared lectures, and by the aid of a skeleton with every bone labeled, and a manikin by which can be shown the location of the internal organs. The functions of these organs, and how to live to preserve their efficient and healthful action, should be the subject of frequent instruction. I have sometimes thought that the less an unprofessional person knows about his "innards," the better off he is, but the hygienic and moral effect of cleanliness of person and linen, of exercise and regular habits, and erect bearing, the evil effects of tobacco and stimulants, especially upon youth, of wet feet and unnecessary exposure, can be profitably dwelt upon.

The teaching of rudimentary physics may and should begin early, because the facts of the science can be made most interesting to a very young class, and the minds of the pupils may be thus directed to habits of inquiry and observation, and be prepared for the serious work which belongs to the more advanced grades. Phenomena may be illustrated by experiments long before the laws which underlie phenomena can be understood, such as the effect of heat upon air and metals; the uses of the thermometer, weather and clinical; the barometer and the pump, made of glass so that the action of the valves may be observed, with many experiments which an intelligent teacher will know how to devise and exhibit by simple and often home-made apparatus. There is no reason why the grammatical forms of language may not be taught in conveying a scientific fact as well as in the wearisome commonplaces so prevalent in the class-room. After a teacher has put a lump of sugar into a tumbler of water, and the pupils have watched its dissolution, the sentence "Water dissolves sugar" is just as useful for illustrating a sentence form as "Cows eat grass," and is much more interesting.

Instruction in ethics or morals should begin with the first day of a pupil's entrance into school. It is a rare class that does not give daily occasion and opportunity to teach kindness, forbearance, truthfulness, and their kindred virtues. Long before the language of a book of morals can be understood, the distinction between good and evil has found lodgment in the child's mind. Virtues and vices are so common as to afford abundant material for illustration, and the story drawn from life and experience is far more effective than any abstract ethical statement.

Grammar as a technical study belongs to advanced grades only,

but English in correct form can be obtained with little knowledge of Brown or Kerl. A hearing child, who has never seen the inside of a school room, but who by reason of a refined and cultured environment has never heard ungrammatical speech, will use language correctly and idiomatically. This use of correct speech, however, comes by constant iteration. Parents, teachers, playmates, day and night are uttering the winged words which set in motion the molecular forces of the air and beat upon the tympanum of the ear with ceaseless impact. Our meager but only substitution for this iteration is by addressing the eye, and therefore endless writing on the wall slate and in the presence of the pupils will accomplish two purposes: it will give the pupil something akin to the repetition of word and phrase so helpful to the hearing child, and it will create or stimulate the reading habit. I can not urge too strongly this latter aid to education. Reading should begin early and be continued to the end of the course. As soon as possible the teacher should get rid of the intervention of fingers and accustom the pupil to take his mental impression direct from the written or printed page, as a hearing child does. The habit thus acquired will last through life, and upon it must depend the intellectual growth and development of the deaf after they leave school.

The foregoing paragraphs will indicate the lines pursued in working out the scheme of study. This is not the time nor place to set forth the full details of the schedule, but as I am often asked how we begin with pupils, it may interest such inquirers to know what is suggested as a course for the first three years:

FIRST YEAR.

1. Teach twenty names of familiar objects, which names shall contain all the letters of the alphabet.
 2. Adjectives of color, dimension, and quality, with numerals up to ten.
 3. Certain transitive and intransitive verbs in the present and past tenses, and their incorporation in sentences, including the use of prepositions.
 4. The personal pronouns.
 5. A few familiar intensive adverbs.
 6. The interrogatives, pronominal and adverbial, with answers.
 7. Counting up to one hundred in the second half of the term, and notation and numeration to the same, with additions and subtractions within the number 10.
 8. Penmanship, using the pencil for the first half, and pen and ink for the second half of the term. Vertical system of writing both on blackboard and in copy-books.
 9. Articulation and lip-reading.
- Text-book to be followed, Sweet's First Lessons, but no evening study.

SECOND YEAR.

1. A rapid review and continuation of first year's work, and in No. 3, adding future tense of the verb and the actual present and imperfect tenses; enlarged use of No. 6 in first year's work, and in No. 7, counting up to 1,000 and addition and subtraction up to the same number.
2. The use of the conjunctions *and* and *but*.
3. Penmanship in ink continued; vertical system No. 2 for the first half, and No. 3 for the second half of the term.

4. The reading habit to be begun. Short incidents or stories of two, three, or four sentences to be written by the teacher and taken mentally by the pupils (no spelling on the fingers allowed) and then reproduced on the blackboard.

5. Articulation and lip-reading continued.

6. Letter-writing once a month.

Text-book to be followed, Sweet's Second Lessons. Some simple book for supplemental reading. No evening study.

THIRD YEAR.

1. Rapid review of second year's work.

2. Further development of the verb, sentence-building, and larger use of interrogatives.

3. Exercises in descriptive picture-writing.

4. The reading of teachers' stories, written in the presence of pupils, and reproduced after five minutes' study, without the use of finger spelling.

5. Morning journal.

6. Number work continued, including multiplication and division. Simple mental arithmetic begun.

7. Letter-writing every two weeks.

8. Articulation and lip-reading continued. The articulation teachers are to be given, with every class, a written list of exercises used in the manual teachers' work, thus supplementing each other and making the two departments co-operate, and the articulation teachers should use in their work the reading books used by the class in the manual department.

Text-book to be followed, Sweet's Third Lessons. A supplemental reading book.

As stated in a previous paragraph, this schedule of the first three years in school is here presented, not for the use or benefit of my professional brethren, who generally follow the same or a similar course, but for the information of those who are not aware of the primitive processes a teacher of the deaf has to use in developing a knowledge of the English language. Whether a boy enters at six or sixteen years of age, he has to begin and go through the same elementary training in acquiring this instrument of thought expression, and there is nothing more pitiful than to see a lad almost old enough to graduate wrestling with the primitive symbols of "cat," "dog," side by side with a child just one remove from the nursery. Parents who thus neglect the opportunity for early education which the State provides assume a grave responsibility, and have only themselves to blame for the meager results which the school is sometimes obliged to send forth.

After the preliminary course suggested above, the order and scope of study follow as nearly as possible the curriculum of the common schools, and to this end and as a guide the course of study used in the Berkeley schools has been adopted. It has been necessary to make some rearrangements and adjustments, but in the completed course it is hoped to give the average pupil a fair knowledge of all the essential subjects studied in the grammar school program for eight years. The high school course which leads to college or the university is special, and limited to certain exceptionally bright pupils who give promise of successfully and profitably pursuing the higher education.

SEGREGATION OF THE BLIND FROM THE DEAF.

The time is rapidly approaching when the segregation of the blind into an institution for their sole use must be considered. The growth of population in California, and the present number of blind in this school, justify such segregation. The motive of economy which has prevailed until now ought not to stand in the way any longer. The location need not be considered, for there is a site on the present property of the State which can be utilized for the purpose, and so segregated as to give all the advantages of complete isolation from the deaf. At the same time, many of the economies of the present method of management could be preserved and continued. One Principal could attend to all the executive functions of the two establishments, with the aid of a first-class Vice-Principal, who should reside in the new building, and have immediate control of the pupils, both as to instruction and discipline. One clerk could look after the books, accounts, and supplies. The present garden and dairy could supply vegetables and milk to both establishments, with little or no additional expense. One physician could attend to the sick, and one hospital serve the needs of both in cases of contagious disease. One laundry could do the washing. The foreman of the cabinet shop, with his apprentices, could do the minor repairs to buildings and furniture. The main assembly hall now in use would offer accommodations for the important public occasions, such as concerts, graduation exercises, etc., and thus save much space in the new building, and so in many ways the blind department would profit financially by being located on the same grounds, and yet have all the advantages of complete isolation. The additional expense would be the salary of a Vice-Principal, cook, and a few servants, together with a small percentage of increase of expenditures growing out of keeping up two kitchens.

I am not prepared at present to ask for an appropriation for this segregated department, but within two years the problem must be considered, and in the meantime I think the Principal should be instructed to have plans and estimates made so that the Legislature meeting in January, 1905, may have something definite to act upon.

The inclosing wall, which has been in slow progress for six years, was finished in September, 1901, and presents a most creditable appearance. I am sure it will meet the approval of all taxpayers. The durable and well-executed stone work does away with the necessity of repairs and painting which the wooden fence continually called for, and in this saving pays a reasonable interest on the cost of the wall. A pair of gates is needed to complete the entrance on the south side of the grounds, on Russ street. The gates should be of iron, to correspond with the entrances on Warring and Dwight Way, and the cost will be about \$100.

FINANCIAL STATEMENT.

We are able to report that another biennial fiscal period closed on the 30th of June, 1902, without a deficit, thus maintaining an unbroken record for thirty-seven years. This gratifying result has not been obtained without effort. Expenditures have been reduced to the lowest point consistent with safety and comfort. Some things have been left undone that ought to have been done. Repairs have been put off that a wise economy would have made. Salaries and wages have been kept at a minimum, and all additions to equipment have been postponed, and only such substitutions made as absolute necessity called for. The market prices of nearly all supplies have steadily advanced, while meats of all kinds, fresh and salted, have appreciated enormously. It must be evident that the Institution can not be properly and efficiently conducted on the appropriation heretofore made, and I earnestly hope that such an increase will be asked for by the Board, and granted by the Legislature, as will enable the Institution to carry on its beneficent work in a manner commensurate with its dignity and importance, and at the same time to keep the buildings and grounds in such repair as will do away with the necessity of special appropriations. The old proverb, "A stitch in time saves nine," has no more apt illustration than in the constant renovation and repairing of buildings and equipment. It may be safely stated that repairs deferred until a special appropriation is necessary costs the State in the long run from twenty-five to fifty per cent more than would be required if such repairs were made at the first indications of need.

There has been drawn from the State Treasury during the period under review, \$120,703.82, and the same amount has been expended. This gives, with an average attendance of 221 pupils, a per capita of \$273.08. The enrollment of pupils at date of writing is 223, and as the current fiscal period ends in June 30, 1903, and the appropriation to be made at the coming session of the Legislature is for the biennial period ending June 30, 1905, we have to provide for the normal increase due to the growing population of California for nearly three years. For the remaining half of the fiscal period ending June 30, 1903, and for which appropriation was made at the last session of the Legislature, it is hoped to conduct the Institution without deficit and without serious detriment, with the aid of the Contingent Fund, in which there was a balance on June 30, 1902, amounting to \$1,649.24; but for the biennial period ending June 30, 1905, we shall need the gross sum of \$124,750. This estimate is made upon the basis proposed in my last report, namely, a per capita of \$275 for 220 pupils, and of \$125 appropriation for each additional pupil. The reasons for this great deduction in per capita cost beyond a certain fixed number of pupils have been set forth

in former official communications. To conduct an institution efficiently, a certain organization and what may be called fixed expenses are needed; to do it economically, a certain number of pupils is required. Administrative expenses, fuel and lights, stable and dairy, building and repairs, laundry, industrial department, keeping up of grounds, etc., are all needed to perfect an organization, and are not materially increased or diminished by, say, thirty pupils more or less, the additional cost being merely a question of one teacher for every class, and of the food and books, etc., required for the pupils.

It is upon this basis, therefore, that I ask for the following appropriations:

For the fifty-fifth fiscal year--	
220 pupils, at \$275 per capita.....	\$60,500 00
10 pupils, at \$125 per capita.....	1,250 00
For the fifty-sixth fiscal year--	
220 pupils, at \$275 per capita.....	60,500 00
20 pupils, at \$125 per capita.....	2,500 00
Total for two years	<u>\$124,750 00</u>

This would give a per capita cost to the State, upon an average attendance of 235 pupils, of \$265.42. I need not say that this is exceedingly low, and can only be done by aid of the Contingent Fund, out of which can be paid clothing bills, with the expenses of building repairs, etc.

ACKNOWLEDGMENTS.

In behalf of the pupils and parents, I desire to extend thanks to the Southern Pacific Company and to the General Manager, Mr. J. Kruttschnitt, for the generous and courteous way in which they have granted half-fare permits and in cases of great need, passes to those of our children who, but for this kindness, would have been deprived of the annual privilege of visiting family and friends during the summer vacation. For thirty years this beneficence on the part of the Railroad Company has been unremitted, and I wish personally to express my grateful appreciation for the courtesy with which every application in behalf of these pupils has been received and granted.

It is also my pleasant duty to extend thanks to Mr. William Wade, of Oakmont, Pa., for the additions to the Institution library of books which he has continued to forward for the entertainment and profit of pupils and teachers.

I also desire to thank Directors Reed and Grindley for chocolates and candies which they have sent every Christmas, and also the Emporium of San Francisco for donations of games and toys which have helped to make glad the holiday season.

And so the record of another two years comes to a close. In some respects, it has been a period of great anxiety, but on the whole we

have cause for gratitude. The epidemic referred to on previous pages was a severe experience, which I hope never to see repeated, and with the facilities almost completed for segregation in case of contagious disease, it is not likely to be.

I desire to thank the Directors for acts of courtesy in our official relation; the teachers and officers for cordial co-operation and faithful service, and the people of California for the good will and generous consideration they, as represented in Senate and Assembly, have shown this Institution and its work through my term of service, extending over a period of more than thirty-seven years. The memory of this good will and support is the dearest possession I hold.

Respectfully submitted.

WARRING WILKINSON,
Principal.

BERKELEY, CAL., November 10, 1902.

PRINCIPAL'S DISSECTION OF EXPENDITURES.

SALARIES AND WAGES.

Principal and teachers.....	\$40,027 55
Physician, clerk, and matrons.....	13,458 77
Servants and services.....	14,204 78
Treasurer.....	2,000 00
Total.....	<u>\$69,691 10</u>

GROCERIES AND PROVISIONS.

Ammonia carb., 35 lbs.....	\$5 73	Malt, 141 lbs.....	\$4 23
Apple butter, 1,032 lbs.....	102 39	Meat, 77,250½ lbs.....	5,641 28
Bacon, 1,247½ lbs.....	172 44	Mincemeat, 161 lbs.....	18 76
Baking powder, 195 lbs.....	68 40	Molasses, 91 gals.....	40 95
Bath bricks, 6 doz.....	2 80	Mustard, 75 lbs.....	9 55
Beans, bayo, 1,479 lbs.....	45 16	Oatmeal, 125 lbs.....	4 35
Beans, lima, 572 lbs.....	31 65	Oats, rolled, 830 lbs.....	25 15
Beans, white, 1,807 lbs.....	76 69	Olive oil, 23½ doz.....	111 55
Bread, etc.....	24 30	Peas, split, 1,060 lbs.....	40 39
Butter, fresh, 9,865½ lbs.....	2,283 39	Pepper, 126 lbs.....	22 25
Butter, pickled, 362 lbs.....	73 49	Pickles, bottled.....	34 80
Canned goods, 217½ doz.....	587 37	Pickles, keg, 105 gals.....	20 00
Capers.....	2 82	Polish.....	32 85
Cheese.....	120 39	Potatoes, 70,143 lbs.....	925 79
Cheese, Edam, 9.....	8 52	Poultry.....	185 71
Chicory, 822 lbs.....	42 12	Raisins.....	17 63
Chocolate, 79 lbs.....	21 02	Rice, 1,950 lbs.....	102 08
Citron, 22 lbs.....	2 90	Saleratus.....	5 72
Cocoanut, 24 lbs.....	5 76	Salsoda, 5,509 lbs.....	61 59
Cocoa, 12 lbs.....	2 80	Salt, coarse, 4,650 lbs.....	40 65
Coffee, 1,916 lbs.....	293 75	Salt, dairy, 90 lbs.....	6 55
Cooking wine.....	25 35	Salt, table, 3,168 lbs.....	37 85
Cornmeal, 2,255 lbs.....	42 42	Saltpeter, 75 lbs.....	8 70
Cornstarch, 266 lbs.....	19 05	Salt pork, 1,099 lbs.....	124 55
Crackers, soda, 3,043 lbs.....	177 67	Sapolio, 84 doz.....	63 60
Crackers, Snowflake.....	20 99	Sauce.....	17 35
Crackers, Santa Clara, 280 lbs.....	19 78	Silicon.....	3 65
Cream.....	2 35	Soap, brown.....	213 65
Cream of tartar, 84 lbs.....	23 76	Soap, Ivory, 17 boxes.....	125 30
Currants, 433 lbs.....	47 91	Soap, powdered, 300 lbs.....	18 00
Curry.....	75	Soap, toilet.....	6 40
Eggs, 1,445 doz.....	348 95	Spices.....	17 90
Extracts.....	36 48	Sugar, brown, 524 lbs.....	24 14
Farina, etc.....	5 61	Sugar, cube, 265 lbs.....	16 55
Fish, fresh.....	101 13	Sugar, granulated, 43,900 lbs.....	1,945 45
Fish, salt.....	64 40	Sugar, powdered.....	21 81
Flour, graham.....	42 65	Syrup, 186 gals.....	48 50
Flour, rye.....	3 90	Tapioca, etc.....	2 85
Flour, white, 446¾ bbls.....	1,422 45	Tea, 543½ lbs.....	209 75
Fruit, dried, 2,164 lbs.....	145 07	Vegetables.....	48 12
Fruit, fresh.....	572 05	Vermicelli.....	1 80
Gelatine.....	4 05	Vinegar, 242½ gals.....	35 09
Ginger.....	4 90	Washing ammonia.....	68 25
Ham, 2,519 lbs.....	350 11	Wheat, rolled, 3,860 lbs.....	76 61
Hops.....	1 63	Yeast.....	4 25
Lard, 3,531 lbs.....	370 63		
Macaroni, etc.....	34 25	Total.....	<u>\$18,361 78</u>
Mace, 15 lbs.....	7 65		

CLOTHING.

Buttons	\$27 93	Repairing shoes	\$399 60
Clothes brushes	5 38	Rubbers	3 50
Collars	9 85	Scissors and clippers	8 90
Combs and brushes	19 78	Skirts	6 75
Corsets	6 40	Shirts	91 98
Darning cotton	4 68	Shirt waists	18 04
Dress goods and making	144 11	Shoes, 167 pairs	310 10
Elastics	7 87	Shoe laces	11 00
Gossamers	6 75	Shoe blacking, 33 doz.	15 34
Handkerchiefs	12 65	Shoe brushes, 3½ doz.	7 88
Hats	13 38	Suits of clothes, 21	113 03
Gloves	1 50	Stockings	35 53
Linings	15	Suspenders	25 75
Nail and tooth brushes	13 36	Thread	84 18
Neckties	5 29	Trimmings	7 39
Night gowns	4 20	Tape	4 55
Overalls	77 77	Underwear	70 16
Overcoats	16 00		
Pants	20 56	Total	\$1,625 54
Pins and needles	16 25		

FURNITURE.

Ash barrels	\$6 50	Mop-cloths	\$59 24
Baskets	10 02	Mop and brush handles	9 06
Bedsteads and repairs	123 82	Napkins, 32 doz.	66 29
Blankets, 25 pairs	21 40	Oil-cloth	2 85
Brooms	71 50	Pails, etc.	24 85
Carpets	244 00	Pillows and cleaning	60 07
Carpet cleaning	136 20	Preserve jars, etc.	14 30
Chairs and repairs	72 80	Quilts	36 75
Chamois skins	7 15	Rubber blankets	13 20
Clocks and repairs	13 50	Scrub brushes	20 06
Comforters	6 00	Sewing machine and repairs	9 95
Crockery	306 35	Sponges	14 50
Cutlery	65 60	Sheeting, 1,793¼ yds.	266 17
Curtains	15 03	String	4 45
Dust and floor brushes	55 40	Table-cloths	85 59
Dustpans	6 00	Ticking	17 01
Enamel-ware	11 25	Tinware	46 75
Feather dusters	66 84	Toweling	294 16
Hair, 100 lbs.	50 00	Trays	3 10
Kitchen utensils	70 17	Upholstering	47 75
Linoleum, 20 yds.	18 00	Window shades	23 95
Mats and matting	77 71		
Mattresses and repairs	158 65	Total	\$2,734 95

BUILDING AND REPAIRS.

Cement, 4 bbls.	\$12 25	Paints and oils	\$184 67
Engine and boiler repairs	70 88	Plastering	64 50
Fire-brick and clay	8 92	Plumbing and supplies	367 14
Glass, putty, etc.	208 41	Range repairs	36 49
Glue	1 75	Road repairs	50 00
Grading	24 00	Roof repairs	138 00
Gravel and sand, 28 loads	56 00	Sewer pipe	8 52
Hardware	172 55	Steam separator	62 00
Heating apparatus and repairs	236 90	Stone cutting	2 00
Lime, 3 bbls.	5 50	Tank repairs	23 95
Lumber	276 15		
Painting and papering	201 15	Total	\$2,211 73

FUEL AND LIGHT.

Candles	\$8 05	Lamps, etc.....	\$36 70
Coal, 297 tons, 930 lbs.....	2,863 89	Machine oil, 60 gals.	36 20
Coal screenings, 401 tons, 180 lbs.	2,205 97	Matches	10 25
Coal oil, 311 gals.	41 15	Machine repairs	25 01
Electric lamps, 600	114 00	Oil for fuel, 130 gals.	9 10
Electric repairs	28 10	Shovel	1 00
Gas	450 15	Wages, engineers	3,600 00
Gas fixtures	21 75	Wood, 25 $\frac{3}{4}$ cords	241 08
Gas regulator	24 00		
Gasoline, 102 gals.	16 83	Total	\$9,733 23

LAUNDRY.

Baskets	\$1 35	Starch, 707 lbs.	\$47 06
Bluing, 84 lbs.	11 20	Wages	2,400 00
Caustic soda, 630 lbs.	50 10	Wax	2 00
Chloride of lime, 506 lbs.	22 92		
Irons	3 71	Total	\$2,538 34

STABLE AND DAIRY.

Axle grease	\$0 65	Nest eggs	\$1 20
Barley, 4,410 lbs.	39 44	Oats, 2,341 lbs.	32 53
Bran, 52,231 lbs.	456 34	Oil-cake meal, 8,354 lbs.	125 67
Brooms	34 38	Pails, etc.	11 65
Buggy and wagon repairs	152 50	Salt, 200 lbs.	3 00
Brushes	5 05	Straw, 39 bales	19 50
Cocoonut, 2,000 lbs.	22 00	Veterinary services ..	12 50
Corn, 9,278 lbs.	143 34	Wages	1,455 20
Farm implements and repairs ...	31 14	Wheat, cracked, 851 lbs.	11 55
Harness and repairs	118 65	Wheat, whole, 11,552 lbs.	132 77
Hay	1,170 85		
Horseshoeing	156 75	Total	\$4,308 23
Middlings, 14,972 lbs.	171 57		

INDUSTRIAL DEPARTMENT.

<i>Printing Office—</i>		<i>Carpenter Shop—</i>	
Ink	\$8 00	Hard wood	\$270 74
Machinery repairs	8 25	Machinery repairs	1 85
Paper	218 96	Tools	82 59
Type, etc.	41 43	Wages	1,350 00
Wages	1,025 00	Total	\$3,006 82

MISCELLANEOUS.

Blacksmithing	\$1 25	Garden tools	\$95 32
Bookbinding	1 50	Gymnasium supplies	15 97
Books, stationery, etc.	614 41	Hose and repairs	46 89
Census reports, etc.	9 76	Ice	42 75
Christmas expenses	60 00	Lye	6 30
Chimney sweeping	7 00	Music for the blind	30 86
Collection charges	100 65	Nursing	1,385 13
Diplomas	5 10	Piano and organ, tuning and	
Drugs	1,175 95	repairs	373 50
Electric bells and repairs	10 88	Pictures and photographs	20 84
Expense of pupils	60 40	Plowing and pruning orchards ..	156 00
Express charges	199 56	Rubber stamps	5 50
Flags	26 70	Seeds and plants	14 81
Flower-pots	4 00	Skeleton	40 00
Freight	49 80	Spectacles and repairs	3 30

MISCELLANEOUS—Continued.

Stamps	\$102 75	Typewriter repairs	\$45 89
Subscription to Annals for the Deaf	62 00	Water, 4,074,631 gals.	1,277 16
Telegrams	14 05	Water sprinkling	12 50
Telephones	242 64	Wrapping paper, etc.	94 13
Traveling expenses	71 55	Total	\$6,492 10
Traps and poisons for pests	5 34		

RECAPITULATION.

Salaries and wages	\$69,691 10
Groceries and provisions	18,361 78
Clothing	1,625 54
Furniture	2,734 95
Buildings and repairs	2,211 73
Fuel and light	9,733 23
Laundry	2,538 34
Stable and dairy	4,308 23
Industrial department	3,006 82
Miscellaneous	6,492 10
Total	\$120,703 82

CONTINGENT FUND.

Bedsteads and mattresses, 70	\$945 00
Building wall around grounds	4,421 99
Cement work	72 22
Clothing	1,110 36
Coal	327 83
Dentist	900 00
Drugs	91 05
Hospital expenses of pupils	580 00
Labor	1,154 00
Painting buildings	1,763 10
Roof repairs	93 00
Shoes and repairing	348 65
Typewriter repairs	38 75
Water tanks	335 00
Sundries	183 26
Total	\$12,364 21

TREASURER'S STATEMENT.

FOR THE TWENTY-FOUR MONTHS ENDING JUNE 30, 1962.

STATE APPROPRIATION.

Received from the State Treasurer	\$120,703 82	
<i>Disbursements.</i>		
Payrolls		\$79,406 93
Supplies, as per vouchers		41,296 89
	\$120,703 82	\$120,703 82

CONTINGENT FUND.

To miscellaneous receipts	\$10,252 18	
To cash from State Treasurer	12,364 21	
<i>Disbursements.</i>		
By sundry accounts, as per vouchers		\$12,364 21
By cash sent to State Treasurer		10,252 18
	\$22,616 39	\$22,616 39

DURHAM FUND.

July 30, 1900—To cash on hand	\$518 10	
June 30, 1902—To interest and dividends	5,890 27	
Received from loans and warrants	10,525 00	
<i>Disbursements.</i>		
June 30, 1902—By disbursements, as per vouchers		\$5,037 73
By cash on hand (including loans and war- rants)		11,895 64
	\$16,933 37	\$16,933 37

LOUIS STRAUSS FUND.

July 1, 1900—To cash on hand	\$4,151 41	
June 30, 1902—To interest and dividends	619 13	
<i>Disbursements.</i>		
June 30, 1902—By disbursements, as per vouchers		\$99 28
By cash on hand		4,671 26
	\$4,770 54	\$4,770 54

LIBRARY FUND.

July 1, 1900—To cash on hand	\$137 20	
June 30, 1902—To interest and dividends	89 14	
To loan	100 00	
<i>Disbursements.</i>		
June 30, 1902—By sundry accounts, as per vouchers		\$200 60
By cash on hand		125 74
	\$326 34	\$326 34

CASH BALANCE, JUNE 30, 1902.

On deposit with Farmers and Merchants' Savings Bank, account Durham Fund	\$1,895 64
On deposit with Union Savings Bank, account Durham Fund	10,000 00
On deposit with Union Savings Bank, account Louis Strauss Fund	4,671 26
On deposit with Union Savings Bank	125 74
	\$16,692 64

RESOURCES.

June 30, 1902—Cash on hand	\$16,692 64
Bills receivable	55,264 53
	\$71,957 17

DETAILED STATEMENT OF BILLS RECEIVABLE.

June 30, 1902—E. Staude	\$16,000 00
Douglas Tilden	2,221 80
Newell Perry	1,990 00
G. T. Redmond	2,065 23
Theo. Grady	450 00
J. W. Howson	687 50
Charles Jurgens	20,000 00
Hospital Fund	10,500 00
Arizona Warrant No. 540	225 00
Arizona Warrant No. 614	225 00
Arizona Warrant No. 804	300 00
Arizona Warrant No. 129	600 00
	\$55,264 53

Respectfully submitted.

I. H. CLAY,
Treasurer.

Subscribed and sworn to before me, this 29th day of October, 1902.

[SEAL.]

PETER C. LASSEN,
Notary Public in and for the County of Alameda, State of California.

LIST OF PUPILS IN THE INSTITUTION.

FOR THE TWO YEARS ENDING JUNE 30, 1902.

DEAF BOYS.

Name.	Town.	County.
Abbott, Ashbel A.	Piney	Monterey
Akers, Lester	San Francisco	San Francisco
Allen, Henry W.	Vacaville	Solano
Baker, James W.	Marysville	Yuba
Baldwin, Edward	Truckee	Nevada
Barthe, John	Livermore	Alameda
Barwise, William	Pomona	Los Angeles
Beck, Marcus W.	Oakland	Alameda
Bemis, Samuel R.	Redding	Shasta
Bernstein, Benjamin	San Francisco	San Francisco
Binzer, William	San Francisco	San Francisco
Blanco, Robert	Gonzales	Monterey
Bonzani, Charles	San Gregorio	San Mateo
Buker, Raymond H.	Aromas	San Benito
Burrell, Fred	Dos Palos	Merced
Broderick, Edward W.	Berkeley	Alameda
Brooks, Lloyd W.	Tulare	Tulare
Campbell, Fred A.	Rumsey	Yolo
Carroll, Philip	San Francisco	San Francisco
Cartwright, Leonard B.	Mesa	Arizona
Cavalli, Julius	St. Helena	Napa
Christiansen, George A.	West Berkeley	Alameda
Clark, Albert G.	Oakland	Alameda
Conrad, Alvin Dewitt	Farmersville	Tulare
Cordano, Louis	Windsor	Sonoma
Cordero, Augustin	Santa Barbara	Santa Barbara
Curtiss, Almon A.	Paradise	Butte
Curtiss, Oliver O.	Paradise	Butte
Curran, William	Gold Hill	Nevada
Davis, George	Belmont	San Mateo
d'Cambri, Manuel	Oakland	Alameda
De Grosellier, Albert	Carson City	Nevada
Depew, Roscoe	Los Angeles	Los Angeles
Dick, Arthur Chester	Virginia City	Nevada
Doane, Clarence	Rialto	San Bernardino
Dougall, Sidney L. P.	Los Angeles	Los Angeles
Dutra, José	Mission San José	Alameda
Elmer, Leslie	San José	Santa Clara
Evans, Stuart	Selma	Fresno
Fine, Erle Bowran	San Francisco	San Francisco
Fletcher Clayton	Brentwood	Contra Costa
Fowler, Bret Hart	Oakland	Alameda
Franck, Henry	San Francisco	San Francisco

DEAF BOYS—Continued.

Name.	Town.	County.
Gabrielli, Guiseppe.....	Sacramento.....	Sacramento
Gianbruno, Guiseppe.....	San Francisco.....	San Francisco
Gleason, Thomas.....	San Francisco.....	San Francisco
Green, Ray.....	Oakland.....	Alameda
Grose, William.....	Nevada City.....	Nevada
Haley, James.....	Jamestown.....	Tuolumne
Hall, Raymond B.....	San Francisco.....	San Francisco
Hannan, Walter.....	San Francisco.....	San Francisco
Hart, William I.....	Princeton.....	Colusa
Hartmann, Adolph.....	Hollister.....	San Benito
Hawvichorst, Robert.....	Los Angeles.....	Los Angeles
Hill, Vivian.....	Berkeley.....	Alameda
Hinman, Gage J.....	Sheridan.....	Placer
Holcomb, Hugo.....	San Francisco.....	San Francisco
Hytti, Hjalmar.....	Sawyer's Bar.....	Siskiyou
Isert, Herman.....	Antioch.....	Contra Costa
Jacobs, Monroe.....	Jamestown.....	Tuolumne
Johnson, William F.....	San Francisco.....	San Francisco
Johnson, Martin J.....	Travers.....	Tulare
Keeley, Alfred C.....	San Francisco.....	San Francisco
Keeley, Joseph G.....	San Francisco.....	San Francisco
Keesing, Barnett.....	San Francisco.....	San Francisco
Kett, Robert J.....	Tehachapi.....	Kern
Kohrumel, William.....	Red Bluff.....	Tehama
Knarston, James Irvine.....	Nanaimo.....	British Columbia
Knuckey, John.....	Oakland.....	Alameda
Kramback, Herman.....	Santa Cruz.....	Santa Cruz
Lawton, William C.....	San Francisco.....	San Francisco
Lester, Walter M.....	Berkeley.....	Alameda
Liddle, Bertrand L.....	Bryson.....	Monterey
Lopez, Clemons.....	West Berkeley.....	Alameda
Mier, Ralph.....	San Francisco.....	San Francisco
Moore, John.....	Anderson.....	Shasta
Morris, Manuel.....	Bolinas.....	Marin
Moynahan, John.....	Vallejo.....	Solano
Musladine, Peter.....	San Francisco.....	San Francisco
Newman, William.....	Crockett.....	Contra Costa
Neil, Henry.....	Pope Valley.....	Napa
Norton, Ernest E.....	St. Helena.....	Napa
Norton, Mayhew.....	San Francisco.....	San Francisco
O'Malley, Everett.....	San Francisco.....	San Francisco
Otis, Charles Raymond.....	San Francisco.....	San Francisco
Page, Claude.....	Tybo.....	Nevada
Page, Marl A.....	Tybo.....	Nevada
Pale, Charles J.....	San Francisco.....	San Francisco
Patheal, Monroe.....	Campbell.....	Santa Clara
Phelps, George E.....	Grass Valley.....	Nevada
Phelps, William.....	Stony Ford.....	Colusa
Phillips, Charles B.....	West Berkeley.....	Alameda
Robles, Daniel.....	Santa Barbara.....	Santa Barbara
Ross, Leslie.....	San Francisco.....	San Francisco
Rossi, Umberto.....	Stockton.....	San Joaquin
Schoryer, Laurel.....	Oakland.....	Alameda
Scott, Elfred.....	Santa Rosa.....	Sonoma
Sherman, Daniel E.....	Three Rivers.....	Tulare
Sherman, William T.....	Three Rivers.....	Tulare

DEAF BOYS—Continued.

Name.	Town.	County.
Sherman, John F.	Three Rivers	Tulare
Smith, Laban T.	Gonzales	Monterey
Smith, Lionel A.	San Francisco	San Francisco
Songey, Ernest	West Berkeley	Alameda
Stephens, William	Virginia City	Nevada
Sweetman, John	San Francisco	San Francisco
Thomas, Walter	San Francisco	San Francisco
Tillman, Leslie	Florence	Arizona
Tickner, Gerald	Sacramento	Sacramento
Timm, Walter	San Francisco	San Francisco
Walker, William H.	Polaski	Fresno
Watson, George H.	San Francisco	San Francisco
Wharton, Valley	San Francisco	San Francisco
Woodruff, Albert	San Francisco	San Francisco
Whitworth, George H.	Newman	Stanislaus
Winters, Elbie L.	Oakland	Alameda
Wood, Goldon	Taylor	Shasta

DEAF GIRLS.

Ashworth, Jessie	Mariposa	Mariposa
Baccus, Celine	Oakland	Alameda
Baldwin, Eleanor	Lander	Wyoming
Beal, Elsie	San Francisco	San Francisco
Beaver, Bertha May	Los Baños	Merced
Billings, Caro	San Francisco	San Francisco
Bonzani, Paulina	San Gregorio	San Mateo
Brodrick, Amy I.	Berkeley	Alameda
Bryan, Hattie	San Francisco	San Francisco
Case, Viola	Paradise	Nevada
Camisa, Louisa	San Francisco	San Francisco
Cloer, Grace	Santa Rosa	Sonoma
Conrad, Goldie	Farmersville	Tulare
Cota, del, Carmen	Montecito	Santa Barbara
Cowles, Inez I.	Red Bluff	Tehama
Cox, Ollie	Glazier	Shasta
Cook, Mae Belle	Yreka	Siskiyou
Crouch, Oma A.	Selma	Fresno
DeLarge, Irene	Prescott	Arizona
Delmas, Carolina	Sanger	Fresno
Devendorf, Ethel E.	Berkeley	Alameda
Dunsmuir, Dora L.	Palo Alto	San Mateo
Douglass, Mattie O.	O'Neils	Madera
Ericson, Alma	Arcata	Humboldt
Finch, Ethel E.	Monterey	Monterey
Freitas, Anna	Haywards	Alameda
Freel, Ida B.	Collegeville	San Joaquin
Fitzgerald, Golda	San Diego	San Diego
Gande, Ida	San Francisco	San Francisco
Genung, Margaret	Sacramento	Sacramento
Ghiorzi, Marie	Stockton	San Joaquin
Golden, Algie M.	Modesto	Merced
Gregory, Elva	Fresno	Fresno
Haagensen, Agnes	Oakland	Alameda
Hare, Irene M.	Berkeley	Alameda
Hall, Grace Edna	Phoenix	Arizona

DEAF GIRLS—Continued.

Name.	Town.	County.
Hinman, Bessie.....	Sheridan.....	Placer
Hoffmann, Martha.....	St. Helena.....	Napa
Hoffmann, Virginia.....	St. Helena.....	Napa
Hogan, Myrtle.....	Santa Clara.....	Santa Clara
Hopkins, Amy R.....	Potter Valley.....	Mendocino
Ikin, May F.....	Alameda.....	Alameda
Jackson, Estelle.....	Fruitvale.....	Alameda
Johnson, Myrtle.....	San Francisco.....	San Francisco
Jones, Henrietta.....	Nassau.....	Calaveras
Keeley, Kate.....	San Francisco.....	San Francisco
Kenney, Anna.....	Yosemite Valley.....	Mariposa
Keesing, Lizzie.....	San Francisco.....	San Francisco
Keesing, Grace.....	San Francisco.....	San Francisco
Kern, Lily.....	San Francisco.....	San Francisco
Knarston, Helen.....	Nanaimo.....	British Columbia
Konz, Gertrude.....	Durham.....	Butte
Larimer, Mildred.....	Tucson.....	Arizona
Lucy, Mary.....	Undine.....	San Joaquin
Luddy, Mabel.....	San Andreas.....	Calaveras
Martinez, Ida.....	Posts.....	Monterey
Matsuda, Mary.....	San Francisco.....	San Francisco
McCarthy, Sadie.....	Los Angeles.....	Los Angeles
McDonald, Isabella.....	Fresno.....	Fresno
McLean, Maggie.....	Fresno.....	Fresno
Millar, Irene.....	Santa Rosa.....	Sonoma
Mitchell, Wildey.....	Selma.....	Fresno
Moldenhauer, Emma.....	San Francisco.....	San Francisco
Nagiller, Ida.....	Williams.....	Arizona
Noll, Martha.....	Irvington.....	Alameda
Parks, Lulu.....	Hollister.....	San Benito
Phelps, Minnie A.....	Stony Ford.....	Colusa
Phillips, May.....	Maine Prairie.....	Solano
Pickering, Gladys.....	San Francisco.....	San Francisco
Reese, May.....	Jackson.....	Amador
Robles, Louisa.....	Montecito.....	Santa Barbara
Roncalli, Angelina.....	Occidental.....	Sonoma
Roncalli, Lizzie.....	Occidental.....	Sonoma
Schimonowsky, Dora.....	Crockett.....	Contra Costa
Shattuch, Phoebe J.....	San Francisco.....	San Francisco
Shea, Lillian.....	Los Angeles.....	Los Angeles
Skaine, Alice.....	San Francisco.....	San Francisco
Sink, Genevieve.....	Cloverdale.....	Sonoma
Stacks, Bessie.....	Elliott.....	San Joaquin
Terrell, Estelle.....	Oroville.....	Butte
Turner, Lorine.....	Oroville.....	Butte
Walter, Annie.....	San Francisco.....	San Francisco
Waters, Ava K.....	Oakland.....	Alameda

BLIND BOYS.

Allen, Murray.....	Oakland.....	Alameda
Allen, Walter.....	Grass Valley.....	Nevada
Baker, Henry L.....	Sacramento.....	Sacramento
Breuyer, Fred W.....	Los Angeles.....	Los Angeles
Britton, Raymond L.....	Lawrence.....	Santa Clara
Caceres, Charles M.....	San Francisco.....	San Francisco

BLIND BOYS—Continued.

Name.	Town.	County.
Clark, Martin D.	Salida	Stanislaus
Cook, Jesse F.	Pomona	Los Angeles
Crossfield, William	San Francisco	San Francisco
David, Benjamin	Bakersfield	Kern
David, Willard	Bakersfield	Kern
Dean, Franklin	Barstow	San Bernardino
Donati, Marco	Smith's Ranch	Sonoma
Dondero, John	San Francisco	San Francisco
Evans, Charles E.	Pomona	Los Angeles
Forester, Frank W.	Pomona	Los Angeles
Gay, Eben	Gilroy	Santa Clara
Grant, Duncan	Sacramento	Sacramento
Greany, Thomas P.	San Francisco	San Francisco
Halstead, George	Current Creek	Nevada
Hammers, George	San Francisco	San Francisco
Harlan, Leland	Williams	Colusa
Harper, David	Oakland	Alameda
Henderson, Raymond	Oakdale	Stanislaus
Henderson, Stanley	Oakdale	Stanislaus
Ingalls, William	San Francisco	San Francisco
Juckett, Clarence	Redding	Shasta
Kloess, Alfred O.	Pomona	Los Angeles
Kloess, Walter L.	Pomona	Los Angeles
Kaunitz, Hilbert	San Francisco	San Francisco
Lyon, Earl H.	Susanville	Lassen
Miller, Polk W.	Ukiah	Mendocino
Miller, Valentine	Ukiah	Mendocino
Miller, Robert F.	Los Angeles	Los Angeles
Oliver, Raymond	Oakland	Alameda
Olcese, Frank	Hornitos	Merced
Paxton, John A.	San Francisco	San Francisco
Phillips, May	Oakland	Alameda
Poulson, Charlie	Lompoc	Santa Barbara
Schoeller, Carl	Capay	Yolo
Scurlock, Walter	San Francisco	San Francisco
Shepard, James W. B.	Arcata	Humboldt
Starkey, Wilson	Bakersfield	Kern
Stover, Elmer M.	San Francisco	San Francisco
Svensen, Andrew	San Francisco	San Francisco
Uruchurtu, Rosendo	Los Angeles	Los Angeles
Voice, Isaac	Fresno	Fresno
Wharton, Edward	San Francisco	San Francisco
Wiegert, Ernest	Alturas	Modoc
Yong Shu Wah	San Francisco	San Francisco

BLIND GIRLS.

Allison, Tilly	Lincoln	Placer
Barbee, Laura	San Francisco	San Francisco
Bridges, Ada C.	Oakland	Alameda
Cabrillas, Carolina	Valley Center	San Diego
Carpenter, Bertha	Fallbrook	San Diego
Coffey, Emelie B.	Stockton	San Joaquin
Corrieri, Esolina	San Francisco	San Francisco
Dibitonda, Rimilda	San Francisco	San Francisco
Erickson, Lena	Stockton	San Joaquin

BLIND GIRLS—Continued.

Name.	Town.	County.
Finnerty, Ruby	San Francisco	San Francisco
Gillespie, May	Stockton	San Joaquin
Graham, Marguerite	San Francisco	San Francisco
Hall, Birdie	San Francisco	San Francisco
Haight, Berna	Little Shasta	Siskiyou
Hill, Rhoda	Chatsworth	Los Angeles
Hilton, Maud	Santa Cruz	Santa Cruz
Jameson, Mildred E.	Los Baños	Merced
Keough, Margaret	Berkeley	Alameda
Mesow, Helen	Berkeley	Alameda
Morrison, Catharine J.	Skyland	Santa Cruz
Murphy, Maud	Rocklin	Placer
Ogden, Sarah L.	Armona	Kings
Oliver, Lizzie	Hollister	San Benito
Oliver, Rosie	Hollister	San Benito
Piper Hazel	Virginia City	Nevada
Prime, Edna P.	Maxwell	Colusa
Robertson, Bessie	Berkeley	Alameda
Ruiz, Marie	McPherson	Orange
Seeley, Catharine	Saticoy	Santa Barbara
Waters, Olive	Oakland	Alameda

TERMS OF ADMISSION.

The California Institution for the Deaf and the Blind is located at Berkeley, about four miles north of the city of Oakland. Between San Francisco and Berkeley, a railroad and ferry offer communication every half hour in the day, and from Oakland there are two lines of electric cars which land passengers within easy walking distance of the Institution.

The Institution offers its benefits to all deaf or blind persons who are of age suitable for instruction, who are of sound intellect, and free from vicious habits and contagious or offensive diseases.

No charge is made for pupils from this State except for clothing and traveling expenses.

Pupils from other States or Territories are charged \$300 per annum, payable quarterly in advance. No reduction is made from annual charge except in case of prolonged sickness.

The session begins on the fourth Wednesday in August, and ends the second Wednesday in June. Parents are earnestly requested to enter or return their children promptly at the beginning of the term. Only in extreme cases will pupils be permitted to leave before school closes.

Pupils should be provided with comfortable clothing when they enter the Institution, and their wardrobe renewed twice a year. The boys are required to wear uniforms which are made to measurement in San Francisco. Two of the suits should be uniforms.

All moneys designed for pupils should be placed in the hands of the Principal, to whom, also, all letters of inquiry should be addressed. Money orders should be drawn on the Berkeley postoffice, and all letters, packages, trunks, etc., should be addressed "Institution for the Deaf and the Blind, Berkeley, Cal."

Parents or guardians of applicants for admission are requested to furnish written answers to the following questions:

1. What is the name of the applicant?
2. When and where was he born?
3. Is his deafness or blindness from birth, or is it from accident or disease? If from accident or disease, at what age and from what cause did he become deaf or blind?
4. Is his deafness or blindness total or partial? If the latter, what is his degree of hearing or sight?

5. Have any attempts been made to remove his deafness or blindness? If so, what were the results?

6. Are there any other cases of deafness, blindness, idiocy, or insanity in the family, or among the collateral branches of kindred? If so, state the relationship?

7. Was there any relationship between parents or grandparents before marriage?

8. Has the child had smallpox, scarlet fever, mumps, whooping-cough, or measles? Has it been vaccinated?

9. What are the names, nationality, and postoffice address of parents?

10. What is the number of other children?

11. How long have parents lived in California?

main - mis. 7



